

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

January 22, 1993

## Defining "Best in Space"

**B**uzzwords and acronyms surround us in everything we do at General Dynamics Space Systems Division, but how often do you think of what they really mean?

One of the most commonly used phrases, heard everyday in some form of division communications, is "Best in Space." In order to understand how we can become the "Best in Space," the *Orbiter* is starting a series of articles on this subject. We started by asking Division President Mike Wynne to help us define the phrase.

Mike Wynne says he coined the phrase "Best in Space" to represent the philosophy of personal improvement in the workplace.

"We need to take responsibility for schedules, quality and costs in all areas of our jobs," he said. "By personally accomplishing this, each employee is working to bring this division closer to becoming the 'Best in Space.'"

He further explained that the success of each employee in achieving this is defined by the work done in each functional area. "Are you reaching 100 percent reliability in all tasks, achieving satisfactory reviews from your internal and

*Continued on page 3*

## It's Here! The New Orbiter

**O**ut with the old, in with the new. That's how the saying goes. But, maybe not all new. As with all continuous improvement processes, we have found some tried-and-true article ideas that the employees of General Dynamics Space Systems Division seem to enjoy.

So, we've decided to keep those, while adding some new features, as requested in last year's *Orbiter* Readership Survey. We hope you like what you see.

Every month we will bring you articles on what's new in the division, as well as stories of personal interest such as the employee profile found in this issue on page 6.

But our work isn't finished here. We still appreciate any inputs you can provide. This is the employee newsletter and we want the employees involved. Since the *Orbiter* is basically a one-person operation (with assistance from the outstanding offsite

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### What Does "Best in Space" Mean to You?



**Mike Austin, Mail Clerk Driver**

"Teamwork. High quality at low cost.... Whatever the power of the mind can conceive and believe it will achieve. Providing service better than the rest."



**Mary Alice Getz, Executive Secretary - Atlas Program Office**

"When we approach our work each day with enthusiasm and gratitude, giving our jobs and coworkers the attention and respect they deserve, our best efforts create an atmosphere for excellence."

**Kathy Kendrick, Human Resources Assistant**

"People being recognized for doing a great job and doing the best they can for the division.... Supporting the TQM concept."



photos by Dan Nash, Still Photography

### In This Issue

- **High on Holiday Spirit**
- **Cultural Awareness Month**
- **Division Donates Scrap**
- **Monthly Stock Figures**
- **Finance Reorganization**



# High on Holiday Spirit

*Photo at left. San Diego Santa Mike Munson and Jim Craycraft of Facilities unload donated toys at the Share Bear warehouse. (photo by Dan Nash, Still Photography)*

A toy box was also set up in one of the VAFB buildings to collect a variety of gifts for distribution to children in the Santa Maria, Lompoc, and Santa Ynez valleys.

On December 11, approximately 125 VAFB employees, guests and retirees attended a 1992 holiday party hosted by Tom Heter – manager of Atlas production at Vandenberg.

The Huntsville Operations office completed the year with a holiday party on December 18, celebrating two year-end wins before breaking for the holidays. The two wins, the Large Subscale Solid Rocket Combustion Simulator (LSSRCS) and Aluminum Lithium Near Net Forging Development programs, helped fulfill all 1992 objectives for the Huntsville office.

The holiday party, held in the conference room of the new Huntsville facility, featured a candy-filled piñata shaped like a Space Shuttle External Tank (made by our own Jerry Björkman). The most memorable images of the party are of John Karas, Dave Sisk, Gopal Mehta and Jerry Björkman wearing an aluminum dome "mask", and swinging a bat at the piñata, occasionally hitting it.

GDSS – CCAFS participated once again in their Needy Family Holiday Program, a charitable fund-raising program started at the Cape in 1962 and designed to provide local families in need with food donations, gift certificates and toys for their children. The 1992 Needy Family Committee was instrumental in the success of this year's program by providing assistance in all fund-raisers held.

Over 70 area merchants and

restaurants donated gift certificates, dinners, and other items to be given as prizes during fund-raising drawings. The 1992 program assisted 37 families, with grocery store gift certificates totalling \$4,240 given to the needy. Thirteen of the largest families received food and toys donated by the employees in addition to the grocery store gift certificates.

GDSS – San Diego personnel participated in the 1992 Share Bear gift drive helping the San Diego County Department of Social Services. Local Girl Scout troop #6335, the Sunrise Cluster Group, and Pepperdine Elementary School children colored posters advertising the drive. GDSS employees collected over 875 gifts for 350 children. These toys were picked up from various GDSS – San Diego locations on December 19 by Santa (also known as Mike Munson of Still Photography) and his elves (the Transportation group) for delivery to the Share Bear warehouse. •

*Inputs provided by Noelia Gutierrez (Harlingen), Brenda Daly (VAFB), Don Deming (Huntsville), Michelle McIntire (CCAFS), and Yolanda Mendoza (San Diego)*

*Eddie the Clown entertained the children of Harlingen Facility employees during a special holiday party. (photo by Sylvia Cantu, Harlingen)*



Throughout the division, GDSS employees celebrated the holiday season with festivities and fund-raisers. Everyone seemed to get in the spirit.

At the **Harlingen Facility**, festivities were in full swing on December 18 when the Employee Recreation Association sponsored children and adult holiday parties. During the first party, 150 children of employees were treated to entertainment by Eddie the Clown, a holiday gift, and an opportunity to have a picture taken while sitting on Santa's lap. Santa Claus duties were performed by Quality Assurance supervisor Larry Frank. All remaining gifts and food were donated to local needy families and Toys for Tots.

The adult's holiday party was held later in the evening, with approximately 250 people attending.

GDSS – Vandenberg Air Force Base's National Management Association hosted a 1992 Toys for Tots campaign. Employees purchased tickets in hopes of winning some great prizes. The money raised by the ticket sales was used to purchase new toys for needy children in the VAFB area. The Salvation Army distributed these toys at a special dinner held in honor of the children.



## Best in Space

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external customers?" he asked. Every step you take to reach these goals is a step in the right direction, he added.

With this insight, the *Orbiteer* editor hit the streets to find out how others define "Best in Space" in terms of their jobs and the division as a whole. These observations will be reported in the next issue of the *Orbiteer*. •



**Dave Mazaika,**  
**Business Planning**  
**Administrator**

"Producing the highest quality products at competitive prices."



**Becky Fleet,**  
**Engineer, Senior**

"Creating high-quality, low-cost designs that will provide our customers with dependable launch vehicles."



**Slick Lindsey, Quality Assurance Specialist**

"Providing the highest quality and reliable products and services on schedule to ensure customer satisfaction."

## Division To Hold First Cultural Awareness Month

GDSS will hold its first Cultural Awareness Month in March. A committee is planning activities for the entire month that are both informative and fun. Committee chairpersons have already been selected.

If you wish to participate in the planning, please contact one of the following individuals:

American Indian – Connie Smith, 44065

Caucasian American – Becky McDonald, 44135

African American – Tozz Pegues, 75587

Asian American – Hiroo Shiba, 44645

Hispanic/Latino American – Yolanda Mendoza, 43602

Please contact Fran Richardson at 43223 for additional information. •

## Division Donates Scrap Parts to San Diego Area Schools

In the past, some electrical piece parts were dispositioned for scrap, hammered by a material review crib inspector to make them useless, and dumped in the trash. But thanks to a new program developed in 1992 by Joe Archutowski of Receiving Inspection at Plant 19, and Fran Richardson, our division's Ethics director and Equal Employment Opportunity manager, these scrap materials are now collected and donated to San Diego area schools for use in the classroom.

Many San Diego high schools and city colleges have electronics shop classes, and components such as those donated by GDSS are needed for instruction and practice in the building of circuits for shop projects. These components, according to Joe, can provide valuable training aids for future electrical engineers.

"Scrapping of electrical piece parts is occasionally necessary at the division," Joe said recently. "These parts include resistors, capacitors, transistors, diodes and integrated circuits. A large majority of these components are functional but are considered obsolete for flight or have failed stringent flight requirements."

Joe worked with Fran to research the proper way of distributing the parts, ensuring the most deserving schools received them. A list of schools has been compiled and as materials become available, Fran notifies selected schools. The schools then send trucks to Plant 19 to pick up the donated parts. Schools involved in the program include San Diego City College, Cuyamaca Community College, Morse High School and Patrick Henry High School.

In 1992, 382 different part numbers totalling 23,683 pieces were donated to area schools. These materials, valued at \$342,492.44, represent a tax write-off for GDSS. Due to the success of this great program, our division will continue to donate scrap piece parts to San Diego schools in 1993. •

Sue Kopp contributed to this article

## Space Briefs

**From Plant Protection – Due to the heated activities in Iraq, GDSS is increasing security measures.**

In addition to enhanced awareness in the checking of photo identification badges and employee parcels, plant protection officers have been instructed not to accept outside deliveries for safekeeping. Employees will be asked to receive any delivered items and take them to their vehicles.

**From Human Resources – Effective immediately, all reserved parking spaces in the Kearny Mesa lots will be available for use by all employees.** The exceptions to this change will be the visitor lot, commuter spaces, DPRO spaces, physically limited parking, carpool spaces, card-access lots and loading zones.

**From Facility Services – We hope to expand our recycling program to include cardboard and styrofoam.** Please contact Tom Edwards at 32905 if your job involves throwing out these items.

**More from Human Resources – Employees can now have their net paychecks directly deposited into their accounts at any financial institution connected with the Federal Reserve System.** To request direct deposit, a completed Electronic Deposit Authorization form must be forwarded to Financial Services Center Payroll. For additional information, contact FSC Payroll at 42717.

## New Orbiteer

Continued from Page 1

reporters, of course), we want and need article ideas from you, the people who make the news.

We hope you enjoy reading this introductory issue of the new, enhanced *Orbiteer*, and we thank you for your continued support. •



## Good News

According to the Facility Services group, GDSS did exceptionally well in 1992, recycling **181 tons** of office paper! This is equal to an environmental savings of **598 cubic yards of landfill space, 123,744 gallons of oil, and 1,885,795 kilowatt-hours of energy.**

Thanks to all Space Systems employees who support this great program! •

## Division's Financial Controls Stronger with Reorganization

As our division moves to a greater stand-alone position within the corporation, the need for consistency in financial controls will be a **cornerstone** for our future.

Rich Corbin was appointed Chief Financial Officer, or CFO, of our division in August 1992 as part of an organizational change to make our division more of an independent entity in a decentralized corporation (see September 4, 1992, issue of the *Orbiteer*).

As we move further toward independence, functions currently performed by the corporate headquarters in Falls Church, VA, will be transferred to the Space Systems Division. These new responsibilities will include insurance, treasury and banking relationships, and perhaps even shareholder relations.

In plain terms, our CFO's responsibilities are to determine the division's financial policies and strategies.

"I use data provided by the division's management to create recommendations for our future business activities."

*CFO Rich Corbin (right) meets with Controllers Ron Giles (seated) and Tom Baranouskas to discuss our division's financial status. (photo by Bill Stillman, Still Photography)*

Rich Corbin said recently, "As we transform to a stand-alone entity, my work will transition to conveying our financial strength outside the corporation to investors, bankers and securities analysts."

Much of the data for these recommendations comes from Controller Ron Giles, appointed in November 1992, the Finance organization, and Tom Baranouskas, Space Magnetics controller.

"We basically handle the day-to-day operations and internal controls of the division," Ron Giles said. "These tasks include general accounting, cost control and the protection of assets."

Ron Giles and Tom Baranouskas work closely with Rich Corbin to ensure that the proper data is included in the division's financial reports.

Between these three men and the Finance organization, our business strategies are defined, including the basic question of how we are going to behave as a business. •



## Focus on Government



As reported in the *Aerospace Daily*, a recent Gallup poll shows that 52 percent of 149 new and returning Congress members say they want to keep space exploration spending at current levels.

Of those polled, seven percent support increased spending, nine percent are undecided, and 32 percent support funding cuts. •

## Local Space Society to Release Moon Bill

San Diego L5, a chapter of the National Space Society, will publicly release a draft version of the Lunar Resources Data Purchase Act at 7 p.m., January 28 at the Tierrasanta Public Library.

This purchase act, also known as the Back to the Moon bill, would authorize the U.S. government to purchase lunar science data from private vendors. According to San Diego L5, this new cost-savings approach to exploration of the Moon would "jump-start" the U.S. lunar program and provide scientists with a more complete understanding of the potentially valuable mineral and elemental resources on the lunar surface.

Presently, the Lunar Resources Data Purchase Act is scheduled to be introduced to the 103rd Congress after comments on the draft bill are considered.

The public is welcome to the January 28 release. The Tierrasanta Public Library is located at 4985 La Cuenta Drive. For further information, please contact San Diego L5 at 295-3690. •



## Service Anniversaries

### December 1992

#### 50 Years

Joe Rice

#### 40 Years

Helen Miller

#### 35 Years

Angie Holmes  
Gerald Owen  
Elton Poole

#### 20 Years

James Carter  
Gladys Fayson

#### 15 Years

Richard Couris  
Bill DeGarmo  
Michael Floyd  
James Green  
Susie McCrink  
Sally McQuinn  
Scott Stutzman  
Julieta Umland

#### 10 Years

Howard Bonstel  
Sigurd Brevig  
Teresa Cabading  
Diana Carter  
James Conley  
David Cunningham  
Rosario Daz  
Kevin Kelly  
Maynard Klos  
Edmund Mills, III  
Alberto Perez  
Lela Reddekopp  
Mariano Sesmundo  
Ralph Van Kummer

#### 5 Years

Waldek Adamek  
S. Bogart  
Leandrew Davis  
Carolyn Ficken  
Dean Jablonski  
Richard Manning  
Susan Mirda  
Marc Rice  
Bernard Robison  
Wilbur Sappington  
Joel Sue  
Frank Watkins  
Jerry Yaddgo

## Retirees

**Margaret A. Beard**  
Management Assistant ..... 6 years

**Calvin J. Carter**  
Engineering Research & Dev. .... 42 years

**William F. Carter**  
Audio Visual Specialist ..... 42 years

**Clayton J. Clark, Jr.**  
Design Drafter ..... 34 years

**Janet M. Crooks**  
Management Clerk Senior ..... 4 years

**Robert E. Drowns**  
Engineering Specialist Senior ..... 34 years

**John R. Edwards**  
Engineer Senior ..... 34 years

**Edward M. Gilchrist**  
Engineering Specialist ..... 8 years

**William P. Glunt**  
Engineering Specialist ..... 31 years

**Eldon F. Isham**  
Production Rep. Senior ..... 35 years

**Ruel E. Jones**  
Engineering Specialist ..... 5 years

**Samuel T. Long**  
Audio/Visual Specialist ..... 14 years

**Beatrice Martin**  
Engineering Rel. Data RCRD .9 years

**George Paul**  
Comm. Designer Senior ..... 35 years

**Louis Roybal**  
Engineering Documentation  
Specialist ..... 17 years

**Rudy Romero**  
Manager - Marketing ..... 35 years

**Waldon W. Schmidt**  
Engineer Senior ..... 21 years

**Floyd R. Sedlund**  
Engineering Specialist Sr. .... 39 years

**Theodore T. Tanalski**  
Project Engineer Senior ..... 48 years

**Ronald R. Varney**  
Engineer Senior ..... 36 years

**Robert L. Watson**  
Engineering Specialist ..... 33 years

**Lowell F. West, Jr.**  
Manager - Production ..... 7 years

**Robert F. Williams**  
Plant Protection Officer ..... 19 years

**Thomas R. Woods**  
Engineering Drawings  
Checker ..... 35 years

**Douglas B. Zink**  
Supervisor - IRM ..... 27 years

## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly and be kept brief. Items for sale or rent cannot be listed in more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Ridesharing and lost/found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,  
Mail Zone C2-7097**

Classified ad information appearing in the *Orbiteer* comes from many sources. The *Orbiteer* and the General Dynamics Corporation do not assume responsibility for or warrant the accuracy or completeness of statements appearing in these advertisements.

**NEXT DEADLINE: COB  
THURSDAY, JANUARY 28**

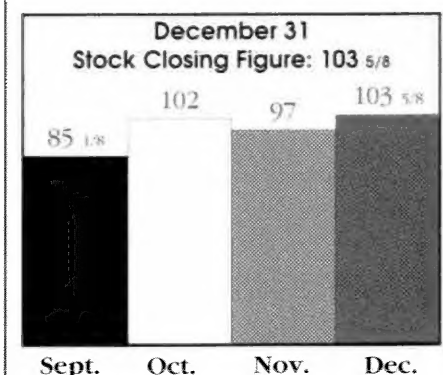
**1978 TOYOTA** Mini-motorhome, Excellent condition, 52,000 original miles, \$4,000 OBO. Mary, 486-1537

**GIRL'S BIKE**, w/basket, adjustable height, inflatable tires, safety reflectors, good condition... deal at \$50. Ed, 421-5467

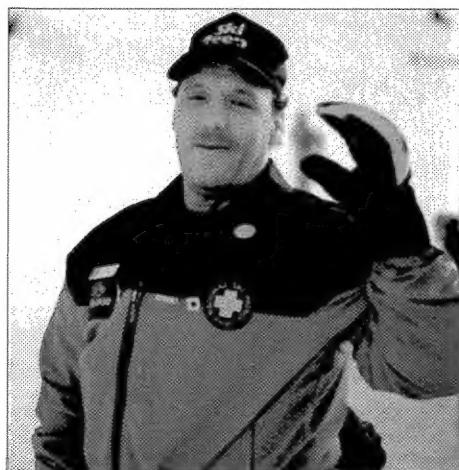
## Correction

In the December 11 issue of the *Orbiteer*, we inadvertently printed that department 879-1 functionally is Parts Engineering. Actually, this department is Failure Analysis, one of the groups listed that reached 1,000 work days without a lost-time accident. We apologize for this error.

## Monthly Closing Stock Figures



## Employee Profile – Charlie McCoy



Charlie McCoy

Many employees enjoy skiing down the slopes during the winter, but Charlie McCoy of Space Assembly Planning puts in his time as a volunteer with the National Ski Patrol.

Assigned to Bear Mountain in the Big Bear Community, Charlie joined the patrol in 1990 as a way to combine a favorite pastime – snow skiing – with his desire to help others.

He is a dedicated volunteer. "I try to go up at least two weekends a month," he said. "The National Ski Patrol requires you to volunteer only once a month."

To become a member of the National Ski Patrol, Charlie was certified in Winter Emergency Care (W.E.C.), an Emergency Medical Technician Class B license. He also has taken a Winter Basic Avalanche and Mountaineering course.

These classes come in handy away from the slopes, as well. In 1992 Charlie helped treat minor injuries at three separate car accident sites using the first aid he is required to know for the National Ski Patrol. •

### In The Next Issue...

- **Centaur Processing Facility Ground-breaking at Cape**
- **Wynne's State of Division Address**

# Questions & Answers

The *Orbiteer* offers space for employees' questions concerning company and industry issues. Please forward your questions to the editor at **Mail Zone C2-7097**. We will try to get your question answered as soon as possible, and will print them as space allows. All questions must include the employee's name, work extension, and employee number. Confidentiality is guaranteed, but we need to verify that the questions and comments received are from employees.

## Q Any ideas or thoughts on what will happen to the Kearny Mesa property after Hughes moves out?

**A** Ideally, we would like to move out of Plant 19 to privately owned property, such as the Kearny Mesa Facility. However, the cost of moving may prohibit this from happening. (Mr. Wynne)

## Q Has the division explored ways to recover the jettisoned parts from the Atlas launch vehicle?

**A** We have looked into recovering parts, but the water is too deep. We do not plan to pursue this task. (Mr. Wynne)

## Q What justification does the company use for hiring contract people while permanent employees are being affected during a reduction in force? This happened earlier this year.

### Employment Figures

(Week Ending January 8, 1993)

Cape Canveral AFS .....	548
Financial Service Center .....	108
GD Space Services .....	63
Hammond .....	154
Harlingen .....	250
Huntsville .....	15
Property Management .....	9
San Diego .....	2,780
Vandenberg AFB .....	208
Other Offsite Locations .....	57
<b>TOTAL .....</b>	<b>4,198</b>

**A** Our policy is to release the contract employee before a GD employee is affected by a reduction in force. The exception is only if a contract employee has critical skills for the position being worked. (Human Resources)

## Q How will the sale of GD Fort Worth affect Space Systems Division?

**A** The pending acquisition of General Dynamics' tactical military aircraft business by Lockheed will have no effect on the Space Systems Division.

To all of our customers and employees, we want to affirm our commitment to the space business area. We expect to remain in business as a leading supplier of medium launch vehicles for the commercial and U.S. government space markets. The Lockheed-GD transaction will have no effect on us whatsoever. (Mr. Wynne)



The *Orbiteer*, Space Systems Division's employee newsletter, is published biweekly. Submitted articles will be printed as space permits, at the discretion of the editor. All submittals may be edited per space requirements. Send items of interest to:

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A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

April 2, 1993

## AC-74 Experiences Anomaly, Places Satellite in Low Orbit

**A**t 4:38 p.m. EST on March 25, Atlas Centaur 74 lifted from Space Launch Complex 36B at Cape Canaveral Air Force Station, FL, to carry the Hughes UHF Follow-On spacecraft into space.

At 24 seconds into the flight, the Atlas booster thrust started to decay to 65 percent of the nominal level. From then on, all systems tried to make up for the Atlas shortfall. Atlas booster cutoff was late, which reduced propellant available to the sustainer stage. In attempting to make up for the Atlas shortfall, the Centaur upper stage first burn was 24 seconds longer and the proper parking orbit was attained.

*"Our business has great high moments and alternate lows. We need to quickly recover our momentum and move our business forward. As a member of the GDSS team, your support and positive attitude is the key to returning Atlas to flight-worthiness."*

**– Mike Wynne's message to employees**

The second Centaur burn, however, was 21 seconds shorter because of propellant depletion. As a result, the final orbit was approximately 4,000 miles lower than required.

While the satellite is healthy and in a stable orbit, Hughes engineers have determined that there is not enough fuel onboard the spacecraft to move it to its intended orbit.

"While the AC-74/UHF mission is obviously a great disappointment to us at General Dynamics, we are gratified that the Centaur upper stage performed even beyond our expectation in attempting to make up for the booster shortfall," Division President Mike Wynne said. "This was important in proving the capability of our upper stage after the intensive investigation into the Centaur failure last year. A preliminary look at the data from AC-74 indicates that we have a problem with a much narrower focus than the previous Centaur failure. That could mean a far shorter launch standdown as we establish the corrective actions necessary to return

### Board Formed to Review Anomaly

An internal anomaly review team has been formed to research the cause of the AC-74 launch anomaly. Chaired by Bob Di Nal, division vice president – Research & Engineering, and vice-chaired by Ben Wier, division vice president & program director – Atlas Programs, the team will analyze the flight data and identify the root cause of the problem and the necessary corrective action to return the Atlas to flight.

Lt. Gen. Forrest McCartney USAF (Ret.) has been chosen again to lead the Major Anomaly Review Board consisting of senior industry officials.

GDSS has committed to independent review of all flight anomalies. •





Atlas to flight."

This was the first problem in the Atlas stage since 1977.

The impact to present schedules is not expected to be of a significant duration, but launch of the Atlas II presently on SLC-36A will await the resolution of the anomaly. It is also expected that because of the above-nominal Centaur performance, there will be no impact to the Titan IV/ Centaur program. •

*Look for updates on the investigation in future issues of the Orbiter.*

## Reminders

-  **April 4:** Spring forward before you head for bed! That's right: daylight savings time begins!
-  **April 6&7:** We want your blood! Come participate in GDSS's upcoming blood drive Tuesday from 8 a.m. to 1 p.m., and Wednesday from 8 a.m. to 3 p.m. at the Kearny Mesa fire station.
-  **April 10:** The CRA & NMA are co-sponsoring this year's Easter Egg Hunt in Missile Park. Gates open at 10 a.m., with the hunt starting at 10:30 a.m.
-  **April 15:** The dreaded day is finally here. You must have your income tax returns postmarked by this date in order to make the IRS deadline!

## In This Issue

- Continuous Process Improvements In Work
- WalkAmerica

# CPI Contributes to Division's Competitiveness

By the CPI Coordinators

**Continuous Process Improvement (CPI) is alive and well at GDSS, striving to achieve significant improvements in our programs and our processes. Some of the current initiatives and their objectives are listed below. For additional information on these and other teams in your organization, please contact your department's CPI coordinator. •**

INITIATIVE NAME	AREA(S) INVOLVED/AFFECTED	GOAL
Joint Program Monthly Review Improvement	Atlas Program Office	Improve PMR efficiency
Clean Vehicle Initiative	Engineering/Launch Operations/ Production/ Quality	Drive defects to zero on vehicles sent to & processed at CCAFS/Move final assembly tasks from CCAFS to San Diego or Harlingen
Statistical Process Control Focus	Plant 19/Production/Quality	Implement next phase of SPC at Plant 19
MRP II	Plant 19/Engineering	Implement MAC/PAC / MRP II in configuration mgmt
Photogrammetry	Plant 19/Production/Quality	Replace theodolite w/photogrammetry as primary process for measuring tank structures & large tools
Leak Check	Plant 19/Production/Quality	Eliminate leaks & improve yields of tanks
Sales & Operations Planning	Division	Coordinate sales demand & production
FOD/FOE	Division	Eliminate foreign objects to improve reliability
Safety Incidents	Human Resources/Division	Reduce incidents of safety & health cases
Security Improvements	Human Resources/Division	Reduce number of security violations
Material Acquisition & Disposition Area (MADA) Processing	KM/Production	Reduce MADA turnaround time to 20 days or less
Precision Clean	KM/Production	Eliminate use of trichloroethane
Booster & Centaur Tube Fabrication & Installation	KM/Production	Improve tube quality & reduce installation discrepancies
Integrated Product Development	Engineering/KM/Plant 19	Implement AC-71 corrective actions
Mission Integration	Engineering	Reduce Atlas mission integration span time
Launch Support	Engineering	Standardize & optimize launch process flow
Materials Streamlining	Engineering/Material	Reduce cost of procuring, controlling & storing raw matls
Automatic Data Monitoring System (ADAMS)	Engineering - San Diego/ CCAFS	Reduce vehicle data station tiger team support in effort to improve efficiency of launch operations
Operations Enhancement	Engineering	Reduce vehicle span time
Employee-Owned Computers	IRM/Security	Allow employees free access & connection options to enhance overall productivity
Facility Consolidation	IRM/Facilities	Streamline relocation process
Hardware Assurance Review (HAR) Process Proofing	Production/Engineering/ Quality/Test	Improve processes used to prepare for T/C HAR
Supplier Continuous Improvement Center	Procurement Quality/ Suppliers/Procurement	Increase supplier quality through demonstrated process ownership & Statistical Process Control
Division Process Team	Magnetics	Develop improved/stand-alone processes for Magnetics business area



## GDSS and DCMC Sign Memorandum of Understanding

On March 11, General Dynamics Space Systems Division and the Defense Contract Management Command signed a "Memorandum of Understanding" (MOU), representing a greater teaming effort between the defense contractor and the government contract administrator. The basis of this MOU is the implementation of PROCAS – Process-Oriented Contract Administrative Services, which include Performance-Based Management.

According to John Thacker, division vice president – Quality Assurance, the value of PROCAS for the government and the company is an increase in efficiency by measuring and continuously improving key processes of the business, with less time spent on assessing performance and responding to these assessments in all areas of the company.

GDSS is one of several companies in Southern California that are implementing this program. George Roos, acting general manager of Hughes Missiles Systems Company, and Roy Adams, chief executive officer at TRW, were also present to sign MOUs. Adams represented TRW's Military Electronics and Avionics Division, located in San Diego. MEAD provides integrated CNI avionics, electronic warfare systems and integrated support facilities for defense, government and commercial markets. •



*Division President Mike Wynne signs the MOU between DCMC and GDSS. Col. Daryll Scott, representing DCMC looks on. (photo by Dan Nash, Still Photography)*

## Join GD's WalkAmerica Team

GD's Convair and Space Systems divisions are joining to form a team in the 1993 March of Dimes WalkAmerica scheduled for April 24. People all over the nation will be participating in the walk, the largest single fund-raising event for the March of Dimes.

Here's how you can join.

1) Contact your group's team coordinator for a registration form and pledge sheet. (The division's coordinators are listed at right.)

2) Return the registration card to your coordinator no later than **APRIL 5**. If you have proof of at least \$10 in pledges, you'll receive a TeamWalk T-shirt.

3) Wear your shirt to work on GD WalkAmerica T-shirt Day on April 5. Use your imagination and decorate your shirt.

Look for more details in the next issue of the *Orbiteer*. For more information, contact Yolanda Mendoza at 43602.

The GD team is also looking for volunteers to work our checkpoint –

Number Five. We need volunteers to work from 6 a.m. to 3 p.m. (2-3 hour shifts). Please call Nancy Siebert at 27302 if you are available to help. •

### **GDSS WalkAmerica Team Coordinators:**

<b>CCAFS</b>	Michelle McIntire (407) 730-5017
<b>Hammond Harlingen</b>	Jan Pershal (504) 543-3227 Noelia Gutierrez & Jerry Preler (512) 430-7835
<b>Huntsville</b>	Don Deming & George Philyaw (205) 922-3323
<b>VAFB</b>	Brenda Daly (805) 734-8232 ext. 65612
<b>San Diego:</b>	
CP1	Penney Gurrola 77351
CP2	Amy Caldera 77504
CP3	Deanna Wheaton 73234
KM24	Julie Slater 41458 Virginia Harvey 41464
KM25/26	Bea Ruvalcaba 43291
KM5	Ray Kreul 39286
KM4	Mike Munson 73208
PLT19	Jim Campbell 23327
CLS	Charlotte Murray 64045

*This is the official GD Team T-shirt art, created by Rick Wilson, based on a cartoon design by Barbara McDonald and Brent Adams.*

## Tuition Reimbursement Program Revised

*By Teresa Cabading, Human Resources representative*

Good News! Human Resources has modified the procedures of the Tuition Reimbursement Program in an effort to make the process more efficient and less time-consuming for program participants. For example:

– **The Tuition Refund Request form** (SSD4021) has been replaced by the Tuition Reimbursement Application. This new form can be obtained from the Public Folder (KM24/1 Human Resources Forms) on a Macintosh computer or from a Human Resources representative.

– **The Professional Development Action Plans** for both graduate and undergraduate programs are no longer required for degree program approval. Instead, there is a "justification" section on the new application that will be used to determine whether courses are job- or field-related.

– **All Tuition Reimbursement Applications** must now be submitted to your HR representative within 30 days of course completion and must be accompanied by proper proof of payment and a grade report. It is no longer necessary to submit applications prior to starting the course.

GDSS will continue to reimburse 100 percent of tuition costs for no more than two courses per quarter/semester, not to exceed \$2,000 per year. Please call your HR representative or Teresa Cabading, 44590, for more information. •



## 1992 Safety Contest Winners Recognized

The GDSS Safety department recently recognized the six groups at GDSS - San Diego that tied for first place in the 1992 Safety Contest. These winners were chosen by the total of points earned in last year's program. Points were earned for the following criteria:

- Attendance at monthly safety meetings by group safety representatives and supervisors
- Dissemination of safety information to employees



Kearny Mesa's ATE Lab had their pizza party on March 17. Members of this department are pictured above. (photo by Ken Blum, Still Photography)

- General Housekeeping of work area
- Returning accident investigation reports on time

Eighty-three individuals were recognized

for their efforts within the six groups: Facilities and Maintenance (Plant 19 dept. 716-5), Receiving/Inspection (Plant 19 dept. 738-0), Tooling (Plant 19 dept. 740-0), Quality/Floor Inspection (Plant 19 dept. 747-0), Planning (Plant 19 dept. 763-0), and the ATE Lab (Kearny Mesa dept. 867-0). Group members were given a pizza party and received engraved flashlights from the division's Safety and Health manager, Bill DeGarmo. Congratulations to all of those involved. •



Members of the five Plant 19 winning groups enjoyed pizza at their recognition party held March 24. (photo by Bill Stillman, Still Photography)

## Safety Is No Accident for Plant Operations

By Tom Edwards, Plant Operations

August of 1992 saw the launching of what has evolved into a successful program for the Plant Operations team. Having obtained support from their management group, represented employees Dana Snoke (currently on loan to Vandenberg AFB), Bob Sabo, Jim Wells, Joe Brunetto and Allen Berry established a Safety committee.

The results of their efforts have been impressive. Weekly safety meetings, attended by all members of Plant Operations, convey a wide array of information from both guest speakers and videos. With the increased awareness of safety procedures and practices, the group has had no recordable accidents this

year, an effort that puts them in first place in the newly implemented PRIDE

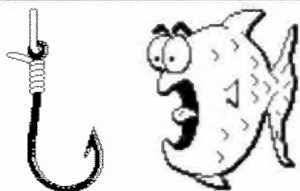
program.

To ensure that each craftsman has all the safety equipment needed to perform tasks in an accident-free manner, personal protective equipment bags were provided. The bags' contents vary, based on the needs of each trade.

The Safety committee has presented awards to employees who have performed extraordinary safety practices or who have proposed new procedures. They have also challenged all other departments to match their exemplary level of performance. As they noted at a recent safety meeting, "Safety Doesn't Hurt." Good work, Plant Operations! •



Plant Operations' Safety committee takes pride in their program. Pictured above are (from left) Joe Brunetto, Allen Berry, Bob Sabo, and Jim Wells. Not pictured: Dana Snoke. (photo by Dan Nash, Still Photography)



## Employees Invited to Fish in Tournament

All are invited to join in the upcoming **GD Catch & Release Fishing Tournament** on April 18 at Lake El Capitan. Two-person teams will compete to catch the largest fish. Contact Roger Lamberson at 39738 for more information, and look in the next *Orbiteer* for photos of the fun! •



## GDSS Small Business Program Rates High

By Patty Pierson, Small Business Subcontracting Program

Our division's Small Business Subcontracting Program, which reports to Roy Bennett, division vice president - Material, recently received an "outstanding" rating from the Department of Defense for performance in 1992, following an audit conducted by the Defense Contract Management Command (DCMC).

In a letter to Division President Mike Wynne, Marvie Bowlin, DCMC Small Business specialist, noted Space Systems' "excellent efforts to assist and award contracts to small and small disadvantaged businesses."

The annual compliance review included an audit of our purchasing system including subcontracting plans, achievement of small business goals, subcontractor compliance with established small business contract goals, training, top management commitment and outreach efforts.

Our significant 1992 accomplishments included:

- Awarding over \$5 million to small disadvantaged businesses (SDBs)
- Awarding \$59 million to small businesses
- Extending four basic ordering agreements to two SDBs
- Donating over \$30,000 worth of computer software to historically black colleges and universities and to other minority institutions

As a result of our successful review, GDSS qualifies to now perform self-audits on our program, certainly a major achievement for the division. •

## Proc/D MRP II Team Tests New Software

By Karl Bunch, Proc/D Implementation Team

In February, the Proc/D Implementation team met with Roy Bennett, division vice president - Material, who reemphasized Material Resource Planning II (MRP II) as a division priority and the importance of a fully integrated MRP system. Proc/D is the defense version of the procurement MRP II software.

The Proc/D Implementation team is so named because they are currently testing the latest version of the Andersen Consulting MRP software that enhances procurement functionality. This team is focusing their efforts on this portion of the software in the Conference Room Pilot phase. Proc/D will bring MRP II to the Procurement, Accounts Payable, Financial Services Center (FSC) and Dock-to-Stock organizations, and will end many of the interim processes in use in the Material organization.

The Proc/D team is a cross-functional group of Material Operations, Procurement, Quality, Finance, FSC, Engineering, Production, Contracts and Estimating, CSC Support and Andersen Consulting personnel. They continue to press toward the goal to install and implement this new version of the software into the production mode by early August 1993. The conversion of Kearny Mesa-unique parts into the system will follow soon after.

The Proc/D team is responsible for creating "real life" scenarios that not only test the software's capability to support GDSS' business base as it relates to commercial and government programs, but also allows for a reexamination of current processes, policies and procedures.

Training classes will begin in May 1993 for those individuals who will be affected by the conversion of the Plant 19 Atlas booster parts into the latest version of the software. •

*The Proc/D Implementation team is ready for work in the Conference Room Pilot, located on the fourth floor of Kearny Mesa Building 24 (photo by Bill Stillman, Still Photography)*



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All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Ridesharing and lost/found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,  
Mail Zone C2-7097.**

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**NEXT DEADLINE: COB  
WEDNESDAY, APRIL 7**

**COLLECTABLES,** Hallmark Ornaments: 1991 Starship, 1992 Shuttle, Elvis, Mustang Tobin Frahley; Also starglobe, Harley Davidson #2 Airplane Bank, Roger 581-9126

**28-FT KOMFORT TRAVEL TRAILER,** Air, range, frig, sink, shower, toilet, awning; interior immaculate, sleeps 6, roomy; Location - Pinecrest Park site 251, asking \$4,250. Call 484-5539

**FOR SALE,** Queen-size waterbed with 6 drawer pedestal, bookcase, headboard and waveless mattress, \$200 OBO. Dan 421-0257

**ROOMMATE WANTED,** 5 bd 2 b. home in Lake Jennings. Kit. and laundry privileges, maid, gardener, utilities, \$375. Linda 561-5161

**1987 JEEP WRANGLER 4X4,** red, 6-cyl., 4.2L, 5 spd, A.C., PS, PB, pullout stereo, new grey soft top, bikini top, new tires, custom wheels, new battery, tow pkg, push bumper, nerf bars, extremely clean, \$7,900. Myron 674-5626

**EXERCISE BIKE,** excellent condition, \$90; Radio TV 5" B/W, \$40; TV 10" B/W, \$20; Girl's Bike, \$15. Call Sharon 271-1426

**FOR SALE,** 2 Bed, 2 1/2 Bath Condo Carlsbad, \$129,000. Melinda 931-9535

**CAMPER SHELL,** fits Chevy S-10, dark grey, sliding windows w/ screens, raised top, excellent condition, asking \$400. John 549-9284 eve and wknd

**FOR SALE,** DP-1000 home gym, \$70; Women's 26-inch Beach Cruiser bike, \$40. Mike 549-0337

## Employee Profile – Ron Thigpen, King of the Mardi Gras



Ron Thigpen

(photo by Lloyd Nye)

Ron Thigpen, senior buyer at the Harlingen Facility, represented GD in the Fifth Annual Style Show at the Mardi Gras Madness '93 Celebration in February. This is an annual event sponsored by the Harlingen Police Officers' Association to benefit the local Family Crisis Center.

Ron modeled casualwear clothing. His quiet charm and his fine appearance won the hearts of the judges, and he was bestowed the title "King of the Mardi Gras." He competed against contestants sponsored by the Harlingen Police Department, the Harlingen S.W.A.T. team, the Jaycees, and other local businesses. Ron was so impressive, he even beat former Dallas Cowboy greats Robert Newhouse, John Dutton, Cliff Harris, and Ed "Too Tall" Jones.

By all accounts we've had of the evening, everyone had a great time while contributing to a great cause. Thank you, Ron, for representing GD so well! •

Article by Noelia Gutierrez, Harlingen Orbiteer Reporter

## Questions & Answers

The *Orbiteer* offers space for employees' questions concerning company and industry issues. Please forward your questions to the editor at Mail Zone C2-7097. We will try to get your questions answered as soon as possible, and will print them as space allows. All questions must include the employee's name and work extension. Confidentiality is guaranteed, but we need to verify that the questions and comments received are from employees.

**Q** Has there been any consideration given to expanding the Atlas product line (and its market share) by offering something other than a Centaur Upper Stage, such as the Transfer Orbit Stage (or TOS motor) built by Orbital Sciences Corp.?

**A** We are working with our customers with some great ideas for improving Atlas and Centaur, and leading to an efficient Spacelifter. Many of these will expand our current niche, but our near-term focus is to become more reliable at the best cost. (Mr. Wynne)

### **Q** How does the Corporate Office restructuring affect GDSS?

**A** The corporate restructure has no immediate effect on GDSS as we were always a direct report to the President's office. The cost savings that will result from the restructure will, of course, be a benefit to our competitive posture. We are pleased to note that continuous improvement can be effective at all levels of our company. (Mr. Wynne)

### **In The Next Issue...**

- **Maternity Fraternity**  
*Featured in Fortune*
- **Japanese Visit Division**
- **New CSC Maintenance Program Now Effective**

### **Employment Figures**

(Week Ending March 19, 1993)

Cape Canaveral AFS .....	544
Financial Services Center .....	108
GD Space Services .....	49
Hammond .....	163
Harlingen .....	247
Huntsville .....	15
Property Management .....	8
San Diego .....	2,768
Vandenberg AFB .....	214
Other Offsite Locations .....	54
<b>TOTAL .....</b>	<b>4,170</b>

### **Correction**

The jury duty policy outlined in the last issue of the *Orbiteer* applies to salaried personnel only. We apologize for any confusion this may have caused. For additional information, please refer to the Human Resources Manual 2-17. •

### **HR Changes EM/OS Account**

Effective April 5, the Space Bulletin shared EM/OS folder will change from [SS\_PRO\_STAFFING] to [SS\_HR]. The Best in Space recognition forms previously found in the shared folder [SS\_EMOS] are now located in the HR folder. •

## **ORBITER**

The *Orbiteer*, Space Systems Division's employee newsletter, is published biweekly. Submitted articles will be printed as space permits, at the discretion of the editor. All submittals may be edited per space requirements. Send items of interest to:

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(504) 545-3227 EM/OS, HR-HAMMOND

Harlingen Reporter: Noelia Gutierrez  
(512) 430-7835 EM/OS, PRELER,GR

Huntsville Reporter: Don Deming  
(205) 922-3323 EM/OS, HSVENG,SS

VAFB Reporter: Lela Reddekopp  
(805) 734-8252 Ext. 69556 EM/OS, HRVAFB



# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

April 30, 1993

## Division Given Favorable Earnings Rating

According to the April 7 *Aerospace Daily*, the investment house Morgan Stanley feels that while GDSS carries a much higher event risk than the other two GD core businesses, the division clearly offers the most upside profit potential.

Analysts from the investment house visited the division in March and reported to investors that they "came away with a more positive view of the core business base" at GDSS.

"We are more than ever convinced that if the company can

return the Atlas to its historical 95 percent-plus success rate, this will become a highly profitable, cash-generating unit," the report said.

Our division's goal is to have 40 percent to two-thirds of the current launch market by the mid-1990s, with a forecast of about 10 Atlas launches per year. In addition, the recent award of Space Launch Complex-3 East at Vandenberg Air Force Base "would open up new markets for polar launches and possibly increase the Atlas launch capability to over 10

launches per year," according to the Morgan Stanley report. This project could also increase our division's revenue, hopefully generating an additional \$40-50 million in 1993.

Morgan Stanley said our division's plans and forecasts are ambitious, but could work, especially since several Pentagon and NASA launches will not be available for foreign launchers. GDSS management hopes to receive seven launch commitments this year.

"To meet its current long-range plans, GD would need to capture two Department of Defense launches, three firm commercial launches, and two options in 1993," Morgan Stanley reports.

Potential division profits are seen from the Titan Centaur program restructuring and our involvement in the Superconducting Super Collider, as well. SSC is considered the division's "wild card," with a potential production follow-on contract worth more than \$1 billion.

If the Atlas performs well, the division could generate revenues approaching \$1 billion in 1995. But the Morgan Stanley report had this to say: "... this upside potential needs to be tempered until the company can prove that the Atlas has been fixed." •

### Cultural Awareness Week Rated a Success



Hiroo Shiba of Industrial Security (pictured above) helped organize this Asian American display. The display was one of several set up in the lobby of Kearny Mesa building 24 as part of Cultural Awareness Week. Division feedback on this first annual event has been very positive. Books of recipes from around the world were distributed to San Diego employees in April through division distribution. For more information, please contact Lillian Soto at 43244. (photo by Dan Nash, Still Photography)

### In This Issue

- **QAR Reduction Initiative In Work**
- **DIS Inspection Results**

# Quality Assurance Researches Cultural Causes of QARs

In an effort to reduce the number of Quality Assurance Reports, or QARs, being written, the Quality Assurance department implemented an initiative to find the cultural causes of QARs and cures for them. QA wants to reduce QARs by taking action on discrepant hardware issues and making timely corrective actions to reduce recurring discrepancies.

QARs are used to document deviations from a blueprint, specification or contract requirement. The Preliminary Review (PR) or Material Review Board (MRB) members write a disposition concerning the nonconformance. Then a corrective action engineer (CAE) is responsible for identifying the problem's root cause and the corrective action that must be taken to prevent the deviation from recurring.

To find the cultural causes of QARs, management at each site interviewed the employees who

perform hands-on tasks on the vehicle and discussed what they thought induced the problems reported in the QARs. The cultural causes were defined as the root causes of a problem, such as insufficient training, rather than the end result, or the actual

## Another example of continuous process improvement at Space Systems Division ...

deviation. Personnel were interviewed at Cape Canaveral Air Force Station, Kearny Mesa Production and Engineering, Air Force Plant 19, Harlingen and Vandenberg Air Force Base.

Employees were asked their perspectives on what the cultural causes of QARs were and what changes they would make to significantly reduce or eliminate QARs. The responses received were tremendous! It is very evident that the

employees of this division want to improve processes.

The inputs received from the various sites have been compiled. Quality Assurance Director Mike Gusha and his staff are presently developing action plans to address identified correctable conditions.

The four significant cultural causes of QARs that were identified are:

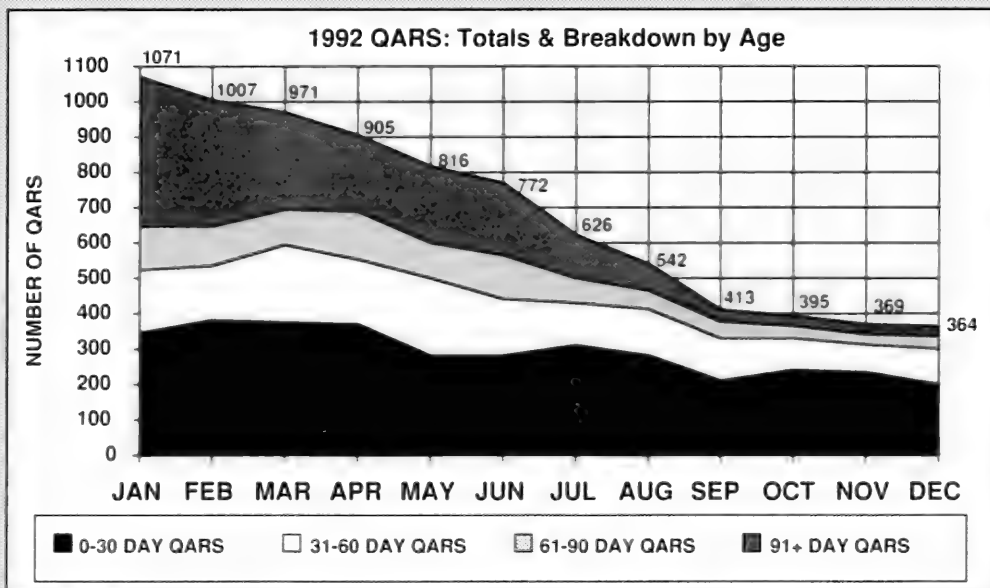
- Instability of the work force
- Non-stable engineering design
- Slow, nonresponsive corrective action system (i.e. repetitive QARs)
- Inadequate work instructions

These main causes were broken down further into three significant issues: people, processes and tool work instructions. More specifics on these will be printed in a future issue of the *Orbiteer*.

Currently, Corrective Action Boards (CABs) are being established at the different locations. According to Mike

Gusha, "These CABs are the key to ensuring that the causes of QARs are identified and eliminated in a systematic manner at each respective site."

Through the elimination of the cultural causes of QARs, the members of Quality Assurance hope to eliminate the problems that result in QARs before they start. In this effort, we will increase the quality of our products as they move through the production process, and in the end save the division money and time. This is one more example of a continuous process improvement in action to bring us closer to becoming the Best in Space. •



GDSS has been working steadily to reduce the number of QARs. As this chart shows, we began 1992 with 1,071 QARs but reduced that number to 364 by year's end. The most significant improvement was in the reduction of over 90-day QARs, which totalled 426 in January 1992. We had only 29 in December 1992. (Chart data provided by Quality Assurance)

# Summer Holiday Schedule

We're sure many of you are working on plans for your summer vacation, so we thought we'd help out and give you the dates for the summer's three holidays and the dates they will be observed:



- Memorial Day                      Monday, May 31
- Independence Day              Monday, July 5
- Labor Day                              Monday, September 6



## GDSS Passes Surprise DIS Inspection

On March 16, five Defense Investigative Service (DIS) representatives arrived at the Kearny Mesa facility to conduct a surprise inspection of GDSS. This was the first surprise inspection held at the facility.

GDSS passed the inspection, for the third consecutive time, without any "serious deficiencies." During the official outbriefing with Division President Mike Wynne, a DIS representative said that GDSS "...still maintains a strong security posture," and our overall security program is "outstanding."

The results of this inspection once again proved that our security program is systemically strong and well maintained year-round, not just during the regular inspection cycles.

The Industrial Security department would like to recognize and thank all participants who helped us achieve another outstanding inspection and showed commitment to our division's strong security posture. •

## Space Systems Stars in CRA Show

Beginning May 7, three Space Systems Division employees will star in the CRA Players' next production, "Saving Grace."

Grace Marasti-Georg of Program Finance, Gary Webster of Guidance and Control, and Michelle Brannon of Legal are featured in this fun-filled comedy. Mark Marasti-Georg (Grace's husband) and Ron McKay also appear.

All are invited to come and enjoy the laughs as the curtain rises on this production about a lonely secretary (Grace) with an overactive imagination. Her boss (Gary) wants to take her away to Hawaii on a business trip. Her sister (Michelle) travels all the way from Chillicothe, OH. A telephone repair man (Mark) comes to fix the phone and finds true love or at least a wife, and a traveling evangelist (Ron) visits from New York City.

The show is directed by Bob Yahnke of Hughes Missile Systems, and produced by Jim Bushway of GDSS Systems Software. Performances will be held in the CRA Clubhouse May 7, 8, 14 - 16, 21 -23. Friday and Saturday shows will begin at 8 p.m., with Sunday matinees at 5 p.m.

Tickets are available from the CRA Emporium, CRA Players members or at the door. Advance tickets are \$5, with at-the-door tickets selling for \$6. Group rates are available. For additional information, contact Jim Bushway at 75055 or 258-6233. •

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**NEXT DEADLINE: COB  
WEDNESDAY, MAY 5**

**FOR RENT,** One BR duplex, unfurnished, \$400. Bea 452-1962

**'65 MUSTANG CONVERTIBLE,** V8, 289. Auto. Red, same owner last 21 years, a documented classic for the serious collector, \$7,777. Gerry 755-5380

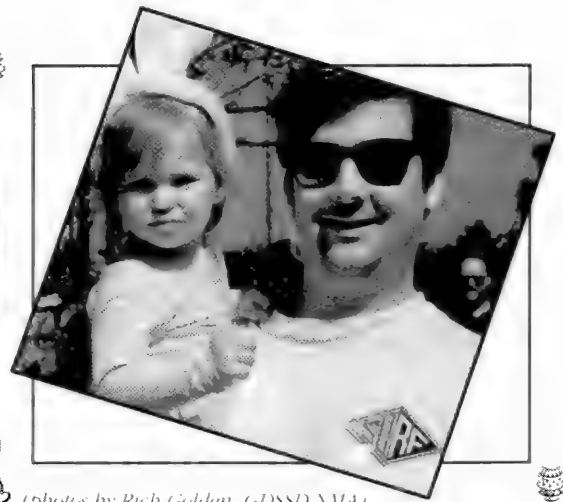
**THE FABULOUS "MARK TONES"** are looking for a versatile bass player. Jack 538-6314

**BABY/TODDLER JOGGER STROLLER,** Excellent condition, hot pink Huffy jogger stroller w/ canopy, \$100. Stacy, 271-0855

## Egg Hunt Madness



Approximately 2,500 children hunted for eggs hidden throughout the CRA Missile Park on April 10 at the annual Easter Egg Hunt. Thanks go to the many volunteers and the CRA who made this event happen again this year! •



(photos by Rich Golden, GDSSD/MLA)



## Employee Profile – Joe (Jim) Mack Rice, Recent Retiree



Joe (Jim) Mack Rice (right) receives cake from Division President Mike Wynne at a retirement celebration held in Jim's honor.

Last month, Joe Rice, known around GDSS as Jim, retired from the company after **50 years of service!**

Jim started at Consolidated Aircraft Corporation in December 1942 as an electrical installer in the Experimental department that built airplane prototypes. He was 21 years old. (Consolidated Aircraft became Convair in 1954.)

As of his retirement, Jim was group leader of the engineering support group in the Kearny Mesa test labs.

Jim still remembers his first day on the job. "I had my badge on that read 'J.M. Rice.' The factory assistant manager began introducing me to other people in the area and I guess he misread my badge, because he kept referring to me as Jim rather than Joe. The name Jim has stuck with me for 50 years at this company, but it never bothered me!"

We all wish Jim a pleasurable retirement and thank him for his many years of dedicated service. •

## Questions & Answers

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**Q** Are there going to be any division layoffs now, following the AC-74 launch anomaly?

**A** As long as there is no change in our sales forecast, we see 1993 as an adjustment year with growth in some areas and shrinkage in others, but generally flat overall in the division. (Mr. Wynne)

**Q** What repercussions will be seen at the division since we didn't win the Medium Launch Vehicle III proposal?

**A** The loss of MLV III is disappointing in that the business volume would have improved our future, but our future was not wholly dependent on the MLV III win and we will be looking to our market niche (given we can win our customers' confidence through successful flights) to secure our future. (Mr. Wynne)

**Q** What is being done in Procurement to streamline the process so that we can get needed materials and services in a reasonable time to support our schedules?

**A** Procurement has taken several significant steps to provide Just-In-Time (JIT) delivery to its customers. Implementation of the "Field Purchase Order" (FPO) system in 1992, establishment of long-term JIT agreements, reduction of the Purchase Authorization (PA) to Purchase Order (PO) span time, and most importantly, aggressive support of the new MRP II system are specific examples of actions taken to improve the overall process. MRP II implementation is one of the most important root cause corrections that will help to ensure material and services are available when needed. World Class companies confirm that shortages and span times are not issues in their production schedules with an MRP II system. (Roy Bennett, Material)

## Employment Figures

(Week Ending April 16, 1993)

Cape Canveral AFS .....	572
Financial Services Center .....	96
GD Space Services .....	44
Hammond .....	164
Harlingen .....	247
Huntsville .....	16
Property Management .....	9
San Diego .....	2,780
Vandenberg AFB .....	209
Other Offsite Locations .....	20

**TOTAL ..... 4,156**



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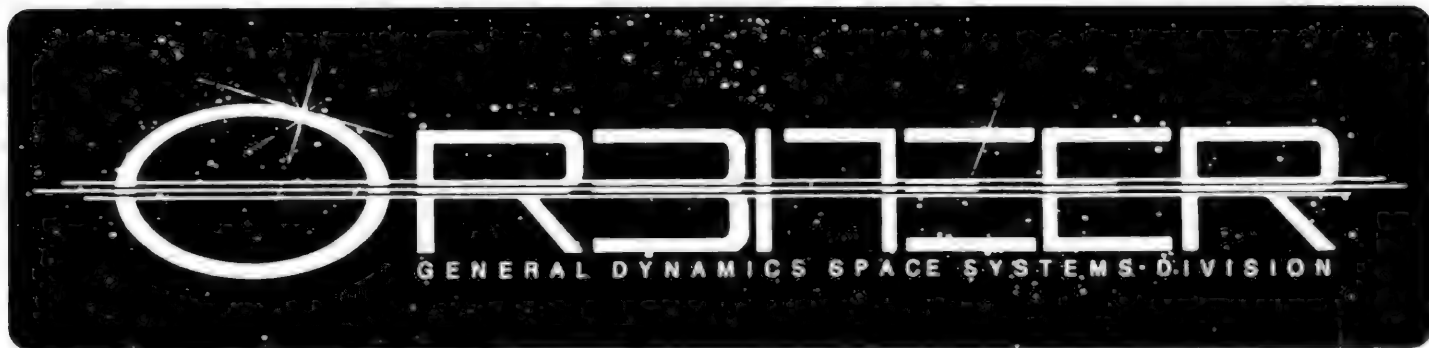
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VAFB Reporter: Lela Reddekopp  
(805) 734-8232 Ext. 69556 EM/OS: HRVAFB

## In The Next Issue...

- **Lovelace Retirement Party**
- **Spring Cleaning**



A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

May 14, 1993

# Harlingen Reaches Class A MRP II Status

By Noelia Gutierrez, Harlingen *Orbiter* Reporter, and Deanna Wheaton, *Orbiter* editor

**A**pril 13, 1993, marked a significant milestone for GDSS. On this day, the Harlingen Facility received the final "brass" for its Manufacturing Resource Planning II plaque, recognizing completion of site milestones, and was certified as a Class A MRP II user.



Division President Mike Wynne (second from left) congratulates Tom Haack, Harlingen Site Operations director, (second from right), for the Harlingen Facility's outstanding performance in gaining Class A MRP II status. Also present are Mike Iverson, director - MRP II & IRM, (far left) and Ed Squires, division vice president - Production. (photo by Dan Nash, Still Photography)

Harlingen is Space Systems' first operating site to be recognized with a Class A operational excellence level in the division's MRP II initiative.

**"I offer my congratulations to Harlingen for their can-do attitude and the ability to achieve Class A performance under difficult circumstances and with minimum resources."**

*- Tom Gillen, Oliver Wight consultant*

The road to Class A performance started over a year ago at this facility. A two-tiered organization was created consisting of a steering committee, including Site Operations Director Tom Haack and his staff, and a cross-functional implementation team.

Under the leadership of its chairman, Senior Material Operations Specialist Bill Ashcraft, the implementation team identified what specifically needed to be done to get each "brass." These "brass" were awarded by the Oliver Wight Consulting Company, an operations management consulting firm, upon successful completion of designated milestones in the areas of 1) Planning and Control, 2) Data Management, 3) Performance Management, and 4) Continuous Improvement.

The steering committee ensured that any obstacles found by the implementation team were immediately eliminated. They also offered resources and guidance as needed.

The Harlingen Facility received its first "brass" on May 29, 1992. When the final "brass" was awarded on April 13, the site was recognized for reaching the

*Continued on page 4*

## AC-74 Anomaly Investigation Status

**T**he second meeting of the AC-74 Anomaly Oversight Board was held May 4-6. While the GDSS investigation is not complete, test and analysis point to an improperly secured stem in a pneumatic precision regulator backing off, which caused the Atlas booster engine thrust to drop to 65 percent of normal thrust. The component had been reworked by the supplier prior to delivery. Rework was accomplished by accepted procedures, but the procedures lacked detailed instructions on how to accomplish the rework.

As a result of the findings, a team headed by John Thacker, division vice president - Quality Assurance, has been formed to review all components on AC-75 and 104 that have been reworked to determine if rework instructions were of sufficient detail to preclude mis-assembly. Corrective action on the failed component is underway and the Anomaly Team is expected to complete the investigation by the end of May, leading up to a late June launch of AC-104. •

## In This Issue

- **Division Cleans for Spring**
- **Introducing the CPI Connection**

# It's Time for Spring Cleaning at Space Systems

Many of you may be involved in spring cleaning at home, but how about in the workplace? Our busy schedules can lead to a "paperwork pileup," which actually may look like an unorganized work environment.

In an effort to combat this problem, the members of Facility Services are emphasizing good housekeeping throughout the year, and have asked the *Orbiteer* to inform you of the many services available to help cut down the clutter.



## Recycling

Those paper items that won't be used again can be recycled if they consist of white or colored paper, newspaper or magazines. Bin delivery and pickups are currently scheduled each Monday. If you need additional large bins contact Tom Edwards at 32905 or EM OS MAINTENANCE.SS. Give at least two preferred days for this service, with a 48-hour lead time.



## Trash Collection

Contact Mike Garrett at 43193 or EM OS MAINTENANCE (attn.: Mike Garrett) to schedule delivery of large trash bins to your area at Kearny Mesa (service available for KM plant only). Be sure to provide information on the number of trash bins and the building and column number where the bins should be delivered. Residents of Century Park can pick up plastic trash bags from the guards to use during the spring cleanup.



## Archiving

One of the basic cleanup services available is archiving. Go through those files you haven't referenced in several years and place them in storage. To archive materials, order boxes through Bayless Stationary (#S1060), and fill out a Transportation Delivery Tag (Form #SSD8013) and a Record Storage Manifest (Form A2009). These forms and additional information on archiving are available from Forms Management. Contact Bill Schiller at 43348 for assistance.

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*There are many services offered through Facility Services that can help employees cut down the clutter in their workstations. (photo by Kent Schnoeker, Still Photography)*

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## Extra Supply Collection

Be sure to go through your drawers and collect extra unused office supplies, such as binders and Pentaflex files. If you and your coworkers have a lot of extra supplies that won't be used, the division can donate them to schools (see related article in April 16 issue of the *Orbiteer*). Boxes are available in the vending rooms during spring cleanup to package these items. Be sure to label the boxes with a list of contents. Then contact Kathleen Byrne via EM OS OFFICE SERVICES.SS with the pickup location.

## Carpet Sweepers

Carpet sweepers are also available for employees located at Kearny Mesa. If you would like to get one for your department, have your facility coordinator contact Mike Garrett at 43193.

All of the services described are offered year-round. If you have additional questions or concerns about cleanup efforts, please contact Kathleen Byrne at 43311.

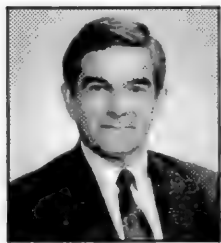
Facilities hopes that this spring cleaning effort will remind you that your workstation reflects you and the division. Let's help keep our workplace clean! •

***During the months of May and June, Facility Services and your department will be recognizing employees who are supporting the spring cleaning effort. These employees will be given assorted gifts. They'll also qualify for a weekly drawing for Padres game tickets!***





## Wash Appointed CLS President



Mike Wash

In an effort to restructure Commercial Launch Services to focus on acquiring new business and filling the flight manifest, Division

President Mike Wynne has appointed Michael R. Wash as president of CLS reporting to the division president.

Mike Wash comes to GD from the Hughes Aircraft Company, where he was the director of marketing for the Space and Communications Group. He has been working in the space industry for over 20 years, including service as a flight controller in the Mission Control Center during the Apollo program.

He also has been involved in aviation throughout his career and is a rated pilot with over 3,000 hours flight time. •

## Industry Information

As reported in the *Aerospace Daily*, **Israel and Russia have signed an agreement to launch an Israeli satellite on a Russian rocket.** The launch, which is scheduled for 1995, will represent the first agreement between Israel and another country to launch a non-defense space mission. •

McDonnell Douglas' **Delta was chosen by Hughes Communications to launch Galaxy 1-R.** Hughes' next-generation communications satellite, according to the *Aerospace Daily*, The launch is scheduled for March 1994. •

NASA has announced that the agency will be proceeding with a **bulk purchase of approximately 20 medium-sized launch vehicles.** NASA expects proposals from GDSS and Martin Marietta, with McDonnell Douglas possibly submitting as well. The contract could bring about \$2 billion to the winning company. •

## CPI CONNECTION

The Continuous Process Improvement (CPI) coordinators introduce to you the newest *Orbiteer* column, the **CPI Connection**. This column will appear each month to provide news and information regarding CPI at GDSS.

Additionally, we invite you to submit questions on Continuous Process Improvements through the **Question & Answer** section of the *Orbiteer* (see page 5). Your questions will be answered by either the CPI coordinators or division staff members. Please use the procedures already in place for the *Orbiteer* **Q&A** section to ask these questions.

If you have any ideas for articles or would like to tell us about your CPI success or opportunity for improvement, please contact your functional or site CPI coordinator. •

### Thank you for your support. The CPI Coordinators

Greg Adolph, Quality Assurance  
Michelle Allen, Contracts & Estimating  
Pat Cowan, Space Magnetics  
Kris Buitenhek, MRP II & IRM  
Lou Brewer, Plant 19  
Dave Clemons, Research & Engineering  
Ken Gowen, Human Resources  
Debbie Faulk, Material

Sue Kopp, Facilitator  
Paul Kopcha, Titan Centaur Programs  
Joe Knapp, Mission Integration  
Robert Lahr, Finance  
Dave Mazaika, Business Development  
Bob Moberly, Atlas Programs  
Jerry Owen, CCAFS  
Anne Wolff, Kearny Mesa 5

## Natural History Museum Offers GD Employee Discount

Get your scissors ready! The coupon printed below is for you to clip out and use at the San Diego Natural History Museum in Balboa Park during its "Insects: Face to Face" exhibit.

The exhibit features giant robotic replicas of a praying mantis, caterpillar, locust, horned beetle and stick insect. There's a live insect zoo and a children's discovery center, too.

General Dynamics Space Systems Division donated money to the museum to help fund this exhibit, and in appreciation the museum offered this special discount to all GDSS employees. Additional exhibit coupons are available at the CRA. •

### SAVE \$2 OFF

### Regular \$6 Adult Admission to INSECTS: Face to Face

### March 6 - September 6, 1993

### SAN DIEGO NATURAL HISTORY MUSEUM

in Balboa Park • 232-3821

Coupon good for up to 6 people.

Not valid the first Tuesday of each month.

Cannot be used in conjunction  
with any other discount.

\$2 for children 6-17 • under 6 FREE

General Dynamics Space Systems Division

## Harlingen Reaches Class A Performance Level

Continued from page 1

Class A performance level in record time – in less than a year, according to Tom Gillen, the Oliver Wight consultant who scored the site.

Now the people of Harlingen Facility are working toward their next MRP II goal – successfully completing the 90-day Class A demonstration period.

According to Bob Sadowsky, Harlingen's manager of Finance and Administration, who led the steering committee, "The Class A process gave us an opportunity to look at the way we do things at Harlingen in a structured fashion, from the basic business processes to the smaller material transactions. This certification process isn't the end, it's a milestone. It provides a foundation for us to move even further and better in our business."

Site Director Tom Haack had this to say: "My congratulations to the whole team! Once again you have demonstrated what can be achieved with a dedicated, ongoing, determined effort, and by working together. This is a major achievement and you can be proud of it. Now that we have reached this milestone, we need to view this as a beginning, not an end. MRP II gives us a competitive edge and it's up to us to improve and grow the business with this new tool."

Congratulations to all of the GDSS personnel involved in making this significant step in bring our division closer to becoming the Best in Space! •



Harlingen's MRP II certification effort was led by Bill Ascraft, who coordinated this multi-disciplinary team. Pictured from left to right are Tom Gillen (Oliver Wight consultant), Don Batson, Pete Stoll, Larry Himes, Bill Ascraft, Bill Souther, Stephen Moes, David Estrada, David Swiler and Russ Erps. Not pictured: Craig Haddad, Jim Trudeau (of CSC) and Larry Verley.

## GD WalkAmerica Team Works Hard for March of Dimes

*San Diego and Vandenberg AFB: First in a series of two articles*

Over 150 Space Systems – San Diego and 40 plus Space Systems – Vandenberg AFB employees walked in this year's March of Dimes WalkAmerica event held April 24.

Everyone joined in the fun, both volunteering to staff the checkpoints and registration tables and walking in the event. San Diego employees enjoyed a picnic at Tecolote Shores upon completion of their walk. The picnic was given by General Dynamics Convair and Space Systems divisions and Hughes Missiles Systems in honor of the hard work put in by their employees.

Vandenberg employees also enjoyed a continental breakfast before the event, and a barbeque following the walk. Look in the next issue of the *Orbiteer* for more information on the other sites' walks and the total dollars raised for this worthy cause. •

**Photo at Right:** Beth Stawiariski registers at the GD team registration table prior to the walk.

Information provided by Yolanda Mendoza, GDSS Community Relations coordinator, and Constance Van Belleghem and Brenda Daly, Vandenberg AFB. Photos by Dan Nash, Still Photography.



**Photo Above:** GDSS and GD Convair employees, including Linda Fischer pictured here, staffed Checkpoint 5 in the San Diego walk. These employees were responsible for checking off the walkers' distance cards and handing out water and snacks during the event.



**Photo at Left:** San Diego team walkers pose for a picture after the walk in front of the GD picnic site at Tecolote Shores.

All GDSS employees are invited to attend a retirement celebration  
in honor of

Dr. Alan M. Lovelace, senior vice president  
and former GDSS general manager.

This celebration will be held at 4 p.m. on May 27  
at the CRA Missile Park.

Tickets: \$5

For tickets, contact:

Betty Johnson, KM25, 39468

Carol Palmer, KM26, 77456

Alice Rosano, CP2, 78897

Pattie Greener, CP1, 75503

Gayle Croft, KM24, 44560

Carol Mitchell, CLS, 64036

Anne Wolff, KM5, 75139

LeShema Brandon, Plant 19, 23868

(please see employee profile on page 6)

## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly and be kept brief. Items for sale or rent cannot be listed in more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Ridesharing and lost/found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,  
Mail Zone C2-7097.**

Classified ad information appearing in the *Orbiteer* comes from many sources. The *Orbiteer* and the General Dynamics Corporation do not assume responsibility for or warrant the accuracy or completeness of statements appearing in these advertisements.

**NEXT DEADLINE: COB  
WEDNESDAY, MAY 19**

## Questions & Answers

The *Orbiteer* offers space for employees' questions concerning company and industry issues. Please forward your questions to the editor at Mail Zone C2-7097. We will try to get your questions answered as soon as possible, and will print them as space allows. All questions must include the employee's name and work extension. Confidentiality is guaranteed, but we need to verify that the questions and comments received are from employees.

**Q Why isn't there an integrated system in place at GDSS to introduce and implement new materials and processes technologies? We no longer have an employee suggestion program. Why don't we have a new technology review board (similar to the patent review board) to evaluate new ideas?**

**A** Ideas to improve our product or processes should be communicated to your supervisor. He/she has the responsibility to evaluate or coordinate your idea with the appropriate organization, and give you feedback on the evaluation.

We don't have a technology review board, but we do have lead technologists in various technical areas (avionics, cryogenics, etc.) who can discuss your ideas that may be of a more technical nature. (Bob Di Nal, Research & Engineering)

**Q Why is the requesting engineer never notified if Procurement cannot meet the need date on a Job Parts List (JPL)?**

**A** Procurement receives an average of 250 purchase requisitions per week, which makes it difficult to provide contract delivery prior to award to each originator of JPL requirements. However, all JPLs and purchase orders are entered on-line, which identifies the supplier contract delivery date. Access to this information is available to all employees with a computer terminal connected to the IBM mainframe.

For additional information or discussions in your particular area concerning Procurement process improvements and improved communications, call Tim O'Leary at 43819. (Roy Bennett, Material)

**Q How does Corporate determine what is the acceptable manpower size for each division?**

**A** The division determines the appropriate manpower size and accepts management objectives to accomplish the predicted task with greater productivity at all levels. (Mr. Wynne)

**Q What was the reason for Bill Anders to step down as Chief Executive Officer (CEO)?**

**286-12MHZ PERSONAL COMPUTER**, 4.5 MB HD, 1.2 MB FD, EGA Monitor, Mouse, Printer, \$400. Brent 569-9538

**EXERCISE BICYCLE FOR \$75**, Girl's bike for \$40, double entry doors for \$40, excellent condition. Sharon 271-1426

**FOR SALE**, refrigerator, like new, GE Hotpoint, 19 cu.ft., light almond color, energy saver, reversible door, 64" tall, 33" wide, 31" deep, \$300. Paula 452-2330

**A** He decided to lead the cost reduction and corporate headquarters by example... but expects to be an active Chairman of General Dynamics. (Mr. Wynne)

**Q After the AC-71 investigation revealed the check valve as the culprit behind the Centaur failures, were there any repercussions imposed on the investigation team for not having correctly identifying the problem during the AC-70 investigation?**

**A** We regret the answer did not get found from the data examined and that the investigation was sidetracked by overwhelming FOD evidence. It was not from a lack of dedication, nor from a deliberate act. Therefore, disciplinary action amid great analytical uncertainty is not warranted. (Mr. Wynne)



## GD To Sponsor National Memorial Day Concert



General Dynamics Corporation will be one of the sponsors of the National Memorial Day

Concert to be aired on May 30 at 7:30 p.m. on public television. This year's concert salutes the pride, patriotism and sacrifice of the millions of men and women who have served on the nation's behalf.

The concert, which features Judy Collins, Mac Davis, Dana Delany, Pete Fountain, James Earl Jones and others, will offer a special salute to those who served in Korea and Vietnam. 1993 marks two important occasions, according to the show's executive producer Jerry Colbert: the 40th anniversary of the close of the Korean War and the 10th anniversary of the Vietnam Memorial.

"It is only fitting that we join the rest of America in remembering – and honoring – the generations who lost their lives on those distant shores," he said.

The show will also feature scenes of American soldiers in their new humanitarian role in Somalia. •

## Employee Profile – Dr. Alan M. Lovelace, former GDSS general manager



Dr. Alan M. Lovelace

Many of GDSS's employees remember the six years Dr. Alan M. Lovelace led the division as our general manager. But not all of us were around in 1985 when the division first separated from Convair. Dr. Lovelace remembers it well.

"When the division first formed, we obviously had a young, energetic team, but we needed business. We submitted a bid for the Medium Launch Vehicle I (MLV I) competition, but promptly lost to McDonnell Douglas. Then we turned to the MLV II competition. A lot of the team will remember spending many Saturdays, nights, and weeks preparing for the competition. When the Air Force determined the winner, they didn't immediately notify the competition.

"I was chairing an AIAA conference at which I had to introduce the Secretary of the Air Force, Pete Aldridge, who was going to announce the winner of the MLV II competition. On his way up to the podium, Aldridge handed me an envelope. I opened it and it read 'Congratulations! General Dynamics has won the MLV II competition!' As I look back on this moment, it's humorous, but at the time, boy, was I nervous. This moment definitely represented a turning point for the division."

Dr. Lovelace retired from General Dynamics Corporation on April 30. He served the company for 12 years, most recently as senior vice president for Space Policy and Technology at the corporate office.

Employees of GDSS will miss this great man, who always had a smile for everyone. We wish him and his wife, Kathryn, a happy future as they start getting caught up on what Dr. Lovelace terms "40 years of deferred fun!" Their first plans are to go fishing.

Dr. Lovelace wants all employees to know he feels that Space Systems Division will prosper. "The coin of Space Systems is its people," he said recently. "Good people make it a good business and a good organization. I can't see how a group of talented, dedicated and energetic individuals cannot succeed." •

## Space Briefs

**From Employee Benefits – June 9 marks the beginning of a preretirement planning seminar.** Employees and their spouses are invited to attend this seminar, which will be held from 5:30 to 7:30 p.m. for five consecutive Wednesdays at the Kearny Mesa Plant. Topics will include company retirement benefits and options for SSIP distribution. Please call 39911 to make reservations. •

## ORBITER

The *Orbiteer*, Space Systems Division's employee newsletter, is published biweekly. Submitted articles will be printed as space permits, at the discretion of the editor. All submittals may be edited per space requirements. Send items of interest to:

### Orbiteer

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## In The Next Issue...

- **First Quarter PRIDE Safety Winners Announced**
- **Smoke Detectors Recalled**
- **Employee-owned Computers in Use at Space Systems**
- **WalkAmerica Continued**

## Employment Figures

(Week Ending April 30, 1993)

Cape Canaveral AFS .....	572
Financial Services Center .....	95
GD Space Services .....	43
Hammond .....	171
Harlingen .....	247
Huntsville .....	16
Property Management .....	8
San Diego .....	2,777
Vandenberg AFB .....	210
Other Offsite Locations .....	25
<b>TOTAL .....</b>	<b>4,164</b>

# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

June 25, 1993



**We'll Be  
Launching  
Again  
Soon!**

## Launch Schedule

*(Official Dates TBD)*

Atlas 34E	Mid-July
AC-104	Mid-July
AC-75	August
AC-106	October
AC-108	November

**Plus 2 Titan/Centaur  
vehicles are scheduled  
to launch in 1993.**

*(This information is subject to change  
without notice.)*

## Anomaly Board Completes Review

**G**eneral Dynamics recently formally announced the conclusion of the anomaly investigation of March's AC-74 launch. With this project completed, two of our customers will now decide when the next launch will happen.

We are scheduled to launch the third mission in the U.S. Air Force's Medium Launch Vehicle II program on Atlas Centaur 104 this year. We are also to launch a Hughes UHF spacecraft in the near future. Flight dates still need to be determined by these customers. AC-104, an Atlas II mission, has already completed

engine shortfall during the launch, the final orbit achieved was lower than required. The U.S. Navy determined that the satellite was operationally unstable.

Immediately after the launch, an anomaly review team, chaired by Bob Di Nal, division vice president - Research and Engineering, and co-chaired by Ben Wier, division vice president - Atlas Programs, was formed. This team reviewed data provided by instrumentation in the Atlas propulsion system that allowed the team to identify early in the investigation the exact component that failed.

**We believe that we have taken a conservative and prudent approach to the corrective action needed to return Atlas to flight.**

wet dress rehearsal at Space Launch Complex 36A, Cape Canaveral Air Force Station. AC-75 is being readied on SLC36B.

Most of the corrective actions designated by the Anomaly Review Board have been completed. A joint GD Air Force team will review all hardware for the upcoming Air Force AC-104 launch. There will be a similar review by GD and Hughes for AC-75.

The official findings of the review team show that the Atlas Booster thrust decay that began 24 seconds into flight of AC-74 was caused by the failure of a precision regulator in the booster engine power control system. The output pressure of this regulator controls the flow of liquid oxygen to the booster gas generator that provides constant booster power throughout the boost phase of flight.

Although the Centaur upper stage tried to make up for the Atlas booster

Using a rigorous "fishbone" cause and effect methodology, the team closed out all possible causes of the regulator failure. Evidently, the regulator failed when an internal stem screw rotated out of adjustment, causing the regulator pressure to decay. The stem screw rotated under a normal flight environment

*Continued on page 4*

## In This Issue

- **Cape Employees Support Education**
- **Safety Recognition**
- **U.S. Savings Bond Drive**
- **Recycling Update**

# Cape Employees Show Support for Education

Article and photos by Michéllé McIntire, CCAFS Orbiteer reporter

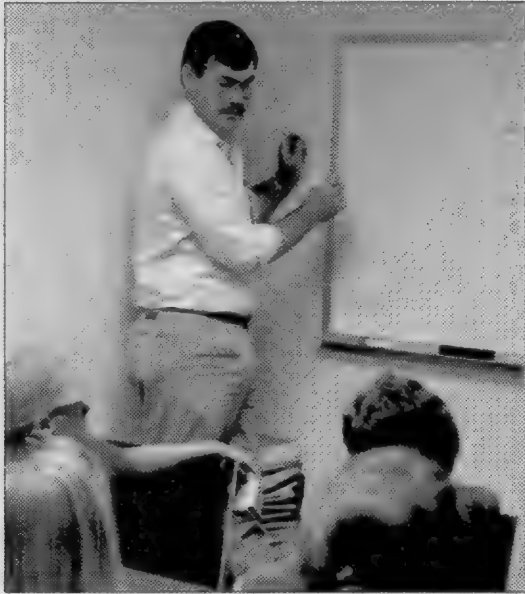


Photo A

GDSS – CCAFS employees strive to launch educated children into the future business world by fully supporting educational programs sponsored by the Cape's Community Relations program.

Our employees' volunteerism echoes the mission of the Cape's Community Relations program. The short-term goal of this program is to improve and enhance education in our community. The long-range goal is to assist in supplementing our future workforce with highly educated and qualified people from our community.

In conjunction with the State of Florida's goals, GDSS – CCAFS provides funding and volunteers to enhance the learning environment in a way conducive to teaching and learning in which students will graduate and be prepared for postsecondary education.

GDSS is proud to be represented by a fine group of Cape employees who are enthusiastically improving and enhancing education in our community.

(photo captions provided on page 3)



Photo B

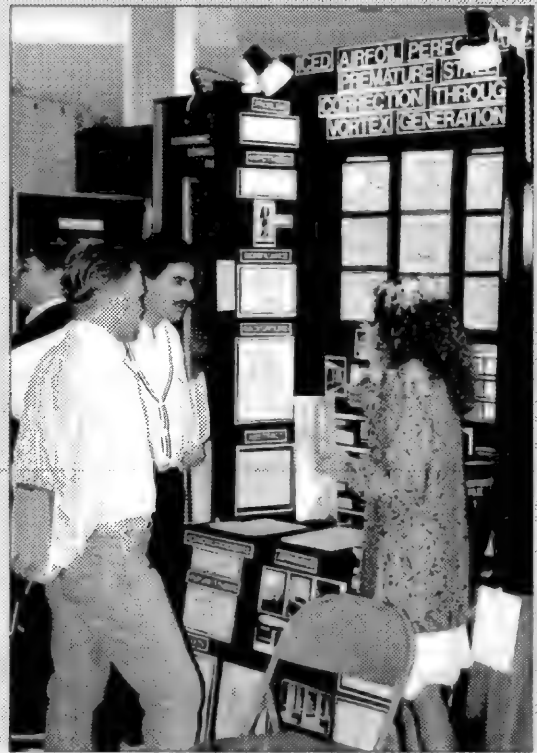


Photo C

Photo D



Photo E





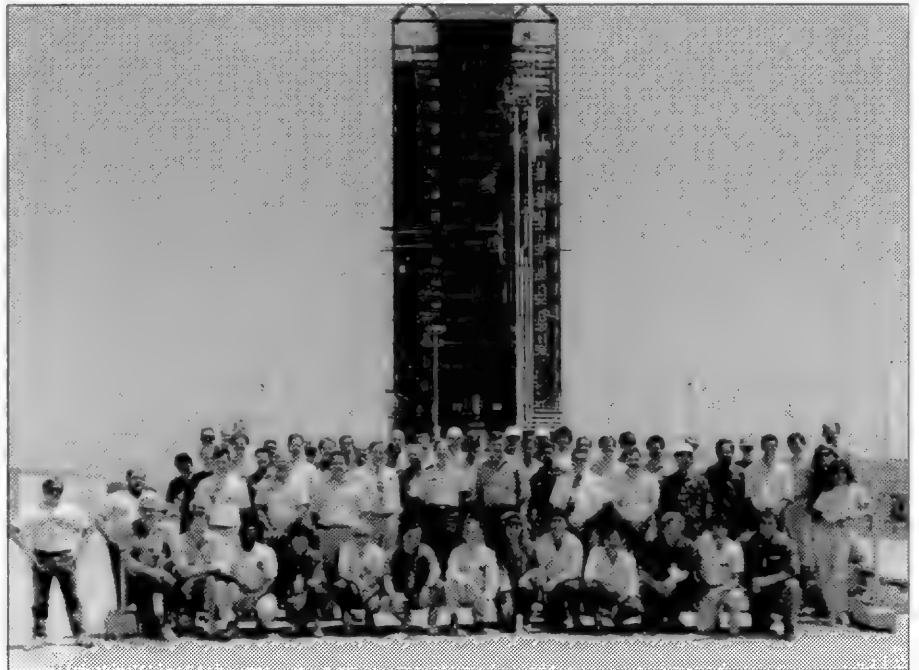
# They're Accident-Free!

The group of employees pictured at right work at **Cape Canaveral AFS Space Launch Complex 36A** and recently celebrated reaching **one year** without an OSHA recordable injury. On May 11, these employees were rewarded for their safety conscious efforts by being treated to 40 pizzas and cold drinks, which they devoured in less than 10 minutes.

## Other notables:

Members of the **Kearny Mesa Atlas Final Assembly group** (Dept. 760-0) were also recently recognized for reaching **100 days** without an OSHA recordable injury. **AND, the Avionics Lab group reached 900 days!** These two groups also were treated to parties.

Congratulations to all of these outstanding employees for reaching these safety milestones! •



## Photo Captions for Cape Education Article

### Photo A:

Ed Christiansen, Atlas Engineering Site Manager- Space Launch Complex 36B, explains the orbital path of a satellite to four students rewarded for meeting the qualifications of an Adopt-A-School incentive program sponsored by GDSS – CCAFS.

### Photo B:

These Cape employees participate in the Adopt-A-School program by volunteering their time. A total of 2,100 volunteer hours have been donated to MILA Elementary since 1991.

### Photo C:

Al Hagopian, Titan/Centaur engineer (left), and Eblan Farris, Atlas engineer, Sr. (right), volunteered one Saturday morning as science fair judges. They are pictured here reviewing one student's project during the annual 1993 Brevard County Regional Science and Engineering Fair. GDSS – CCAFS awarded a first place prize of a \$100 savings bond to the winner in the Junior High and Senior High Engineering Project category.

### Photo D:

Stacy Murphy, Atlas engineer, Sr. and founder of the Adopt-A-School Program at the Cape, accepts an award on behalf of GDSS – CCAFS from Florida Commissioner of Education Betty Castor. GDSS – CCAFS was honored with the Sixth Annual Commissioner's Business Recognition award for outstanding support of education.

### Photo E:

Garrett Skrobot, Atlas engineer, demonstrates the physics principle of thrust using a balloon and a string to students at Croton Elementary School. The class' teacher, Pam Yates, was one of four teachers in Brevard County who received a Teaching Excellence Grant from GDSS – CCAFS for funding of a rocketry study for her classroom.

## Space Briefs

### From the CRA-HFC – Get in shape for summer by joining the next session of SHAPE UP at the CRA.

This fitness program begins July 7 and runs for 10 weeks. The program is free for HFC members and \$50 for non-members. The ancient martial art of Tai Chi is also being offered by the CRA on Thursdays from 5:30 - 6:30 p.m. The classes cost \$50 for HFC members, \$55 for CRA members, and \$60 for others. For more information on both classes, call 39921.

### From MRP II – The next milestone for this project is to bring PROC/D, the procurement portion of the MRP II software, into production on August 3.

In preparation for this, a team is conducting a Systems Readiness Review in the MRP Pilot conference room. This activity exercises and tests the PROC D software and the developed interfaces with real world scenarios. Upon successful completion, the activity moves to a Production pilot, and then to data conversion as the system moves into production. It will directly affect Finance, Material and Quality Assurance operations.

## Launch

Continued from page 1

because a set screw that would normally prevent the stem from rotating was not adequately torqued. Engine analytical simulations and a hot fire test with a loose stem screw duplicated the AC-74 anomaly.

An independent review board chaired by Lt. Gen. Forrest McCartney (USAF, retired) agreed with these investigation findings as well as with the corrective actions that are being incorporated before Atlas returns to flight. These include redesigning the precision regulator stem screw and extensive quality confidence actions.

Since the loose set screw was most likely caused by inadequate torquing or inadvertent loosening during a rework of the regulator, the investigation team did an exhaustive review of quality processes at Rocketdyne, Space Systems and other key suppliers.

That review determined that existing quality systems are consistent with contemporary aerospace industry practices and that no systemic deficiencies exist. However, enhancements have been identified and are being implemented.

We believe that we have taken a conservative and prudent approach to the corrective action needed to return Atlas to flight. The employees of Space Systems Division should be recognized for their hard work and support of the review teams in getting us back to launch readiness status.

Hopefully it won't be long 'til we all watch the next launch countdown. •

## Buy Bonds & Join the Easy Savings Plan

Have you won yet? If you signed up for a U.S. Savings Bond through the Space Systems Division's 1993 campaign, you certainly have! And, you can get a chance at a bonus, with special daily drawings for great prizes.

We hope to net 100 percent participation at all Space Systems locations with the 1993 campaign, which began June 15 at non-San Diego sites and June 22 in San Diego. And it's so easy! Use payroll deduction and save money for yourself. It's the easiest savings plan you can sign up for and it saves the country borrowing costs too! Buy bonds for yourself to save for your retirement or a special vacation, or get them for your children or grandchildren to help finance their education.

No doubt about it, bonds are a smart buy. And GDSS is even making the deal sweeter by offering daily drawings to win these great prizes:

*Sea World passes, \$100 U.S. Savings Bonds, bread making machine, cappuccino machine, Disneyland passes, Magic Mountain passes, dinner on the Invader Cruise, Knott's Berry Farm passes; plus gift certificates from the following: The Wherehouse, See's Candies, Diamond Designs, Humphrey's by The Bay, Hungry Hunter, Circuit City, Computer Land, Sizzler, Soup Plantation, Sport Mart, Anthony's Restaurant and Nordstrom.*

In addition to these items, the first 500 new participants will receive gifts. Also, a grand prize – a video camcorder – will be awarded on the last day of the campaign, July 2.

Get your bond drive registration cards (and become eligible for the prizes) from the following list of coordinators:

**CCAFS:** Michelle McIntire

**Harlingen:** Bill Souther

**Space Service Co.:** Lorna Hall

**Huntsville:** Tom Velez

**Hammond:** Bill Faulkner

**VAFB:** Brenda Daly

**San Diego:**

Carol Aguilar (Operations)

Matt Anderson (Property Management)

Lou Brewer (Quality Assurance, Plt 19)

Al Catalano (Operations)

Pat Cowan (Space Magnetics)

Todd Dolezal (Human Resources)

John Duncan (Legal)

Cyndee Evans (Material)

Robbin Foss (Titan Centaur)

Bill Greenwood (Quality Assurance)

Richard Hatting (Finance)

Karl Hoyle (Contracts & Estimating)

Gloria Jones (Quality Assurance, KM5)

Alda Jorgenson (Bus. Development)

Arnie Kennedy (MRP II & IRM)

Roxanne Khan (Research & Engrg)

Joe Knapp (Mission Integration)

Vince Lima (Quality Assurance)

Yolanda Mendoza

(Public Affairs & Community Relations)

Jeff Pate (Operations, Plt 19)

Pam Santurro (Atlas)

Ronnie Smith (Quality Assurance)

Deanne Vigliotti (Quality Assurance)

Anne Wolff (Operations, KM5)

Take Stock in America – Buy U.S. Savings Bonds! Invest in yourself, in your future and in your country. You may even win a great prize as a bonus! •



## Division Recycling Program Update

Currently, the division program recycles office paper (including the *Orbiteer*),

newspapers, asphalt, fluorescent light tubes and the Tyvek garments used in the clean rooms. Space Systems employees continue to set the pace for accuracy in office paper recycling. While the industry accuracy standard for placing the three types of paper we recycle into the proper bin is 95

percent, we again register at 99 percent.

To date, we have saved 900,243 pounds of paper, or:

- 7,652 trees
  - 4,681,714 kilowatt hours of power (enough energy to supply 896 San Diego homes for a year)
  - 308,208 gallons of oil
  - 43,200 gallons of fresh water
  - 1,485 cubic yards of landfill space
- Penney Gurrola of the Space

Magnetics program has implemented a successful aluminum can recycling program. Penney collects the soda cans saved from our wastebaskets and takes them to the Miramar Landfill to receive funds for recycling the cans. General Dynamics matches that dollar amount, with all proceeds benefiting the "I Love a Clean San Diego" campaign.

Personal efforts such as Penney's make our recycling program so successful. •

# Service Anniversaries

## May 1993

### 40 Years

James Winger

### 35 Years

E.C. DeBlanc, Jr.  
Helen Gallant  
William O'Rourke  
Freddy Palmer  
Charlie Tuck

### 30 Years

William Bussey, Jr.  
John O'Husky  
Albert Schmidt  
Max Steele

### 25 Years

Raymond Gamboa

### 20 Years

Sigvard Anderson  
Benedict Broussard  
George Hill  
Walter Olney

### 15 Years

Francisco Bonillas  
Aniceto Moron, Jr.  
Samuel Packer  
Harold Rice  
Paul Sager, Jr.

### 10 Years

Arthur Adame, Jr.  
Suzanne Beggs

Elaine Bergman  
Janice Birmingham  
Ronald Green  
Jan Houshar  
Lance Lenkiewicz  
Barry Levin  
Patty Meredith  
Van Simmons, Jr.  
Tom Stellwag  
Mark Wright

### 5 Years

George Aburto  
Gary Albert  
Clemente Barrera III  
Luis Benavides III  
Steven Bodmer  
Calvin Burris  
Henry Chavez  
Harry Cordero  
Marvin Emsley  
Max Enoch  
Philip Eslin  
Jose Estrada  
Paul Farley  
Ronald Fessel, Jr.  
Gerardo Flores  
Richard Ford  
Lonnie Franklin  
Alice Garcia  
Chuck Gibson  
Guadalupe Gomez, Jr.

Climmer Graham  
Adam Hencin  
George Hickman  
Sonia Hopkins  
Srinath Iyengar  
Eduardo Jaramillo  
Jeffrey Johnson  
Glen Kirby  
Brett Lannie  
Javier Leyva  
Janet Mallari  
Trina Mann  
Peter Margetts  
Mary Marr  
Terrell McCloud  
Michelle McIntire  
Yolanda Metcalf  
Ramon Morales  
Gerardo Munoz  
Deborah Pederson  
Cristobal Peralez  
Marion Prater  
Carol Quimby  
Louis Raile  
Stephen Ritter  
Judy Schweitzer  
David Sherrier  
Alberto Silguero  
Steve Smith, Jr.  
Robert Steadman  
Joseph Wurst

# Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly, be kept brief, and will be printed as space permits. Items for sale or rent cannot be listed more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Bidesharing and lost-found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,**

**Mail Zone C2-7097**

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**NEXT DEADLINE: COB WEDNESDAY, JUNE 30**

**WATER DISTILLER** 95% lead-free water, new, in factory carton. Chuck or Jo, 464-8038

**NORTH PARK**, 1 BR unfurnished, 8th month free. \$375. Bea, 452-1962

**FOR RENT**, Penasquitos, 4 BR, 2.5 BA, 2-story, 2-car garage, new, quieter neighborhood, near school - Poway school distr. Rita, 481-5267

**1982 TOYOTA COROLLA**, 2-dr hatchback w/ AC, auto, good AM-FM, tape, EQ, \$2,600 OBO; Couch, loveseat, good condition, matching coffee & end tables, all for \$150; Oak entertainment center, 2 bottom doors, \$150. Bonnie, 571-3640

**TOWNHOUSE FOR RENT**, La Jolla, 2 BD, 2.5 BA, attached 2-car garage, fireplace, tennis, pool, jacuzzi, large deck, near UCSD, easy access to I-5 and 52, \$950 mo. Buyers also considered. Daryll, 458-9563

**FOR SALE**, Delta radial arm saw, 3 years old. \$300. John, 486-3535



## Employee Profile – Len Phillips, CCAFS Engineering Specialist

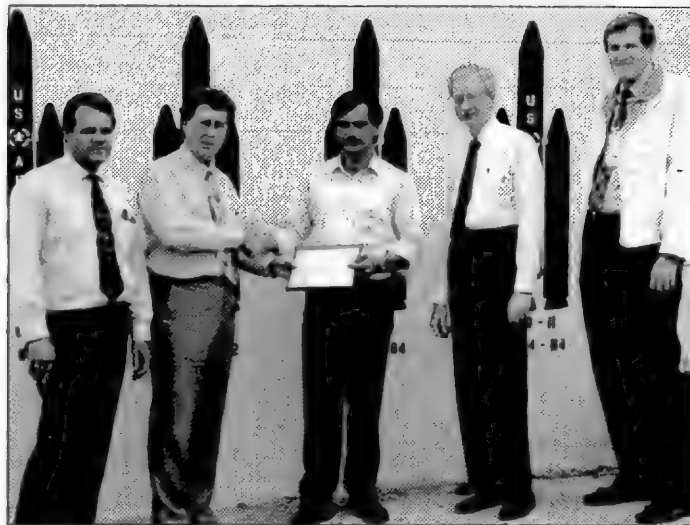
GDSS – CCAFS employees are proud to have a talented coworker by the name of Len Phillips, an Engineering specialist in the Design Engineering department. During the past several months, Len has been assisting in the completion of the Space Launch Complex 40 activation. Activation of a launch complex is no easy task as many of you may have experienced from the SLC 36A activation.

On March 17, Len received an employee commendation awarded by Martin Marietta Space Launch Systems Company – Cape Canaveral operations, the prime contractor for the Titan/Centaur program. Len was recognized for being "instrumental in providing assistance to the Space Launch Complex 40 activation effort and in facilitating the flow of data within his group, GDSS San Diego, and the Martin Marietta Company (MMC).

Len received a framed certificate, a gift certificate to an area restaurant and a money clip/divot tool. In accepting this award, Len said, "This is really a team award. The total effort was the key to our success. No one does it alone."

Congratulations Len, on a job well done! •

Article and photo by Michelle McIntire, CCAFS Orbiteer reporter



Len receives his award from MMC. (Left to right) Gordon Nielsen, CCAFS director-Titan IV program – MMC, Bob Klein, CCAFS manager of Quality/Safety Systems – MMC, Len Phillips, CCAFS Engineering specialist – GDSS, Bill Haberbern, CCAFS Titan IV Acceptance chief – MMC, and Harry Armer, Jr., CCAFS manager of Engineering and Operations – GDSS.

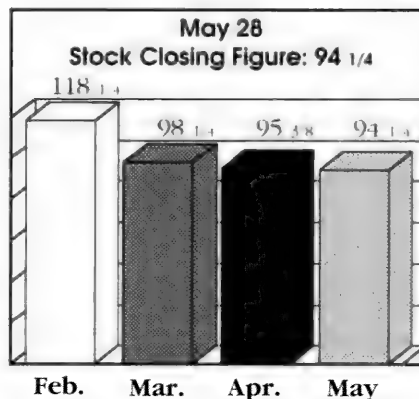
### In The Next Issue...

- 35th Anniversary of Kearny Mesa Plant
- CLS Moves into KM Building 24
- County Honors GDSS

### Retirees

<b>William N. Beers</b>	Group Leader, IAM	42 years
<b>David B. Chizlett</b>	Manager, Production	24 years
<b>William E. Connacher</b>	Pub. Tech Specialist, Sr.	31 years
<b>Gary W. McCrary</b>	Eng. Specialist, Sr. – Prod.	35 years
<b>Robert M. Mitchell</b>	Material Analyst	36 years
<b>John C. Nelson</b>	Chief Quality Engineering	31 years
<b>Philip E. Parker</b>	Project Engineer Sr.	14 years
<b>Carl I. Wannamaker</b>	Group Engineer QA	15 years

### Monthly Closing Stock Figures



### Employment Figures

(Week Ending June 11, 1993)

Cape Canaveral AFS	564
Financial Service Center	94
GD Space Services	42
Hammond	180
Harlingen	244
Huntsville	16
Property Management	8
San Diego	2,762
Vandenberg AFB	208
Other Offsite Locations	28
<b>TOTAL</b>	<b>4,146</b>



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**ORBITER**  
GENERAL SYSTEMS DIVISION

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**Orbiteer**

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Harlingen Reporter: Noelia Gutierrez  
(512) 430-7835 EM/OS: PRELER,GR

Huntsville Reporter: Don Deming  
(205) 922-3323 EM/OS: HSENG,SS

Space Services Reporter: Dave Bennett  
(407) 783-1236 EM/OS: KENYON,R

VAFB Reporter: Barbara Klinedinst  
(805) 734-8232 Ext. 67547 EM/OS: HRVAFB

# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

July 23, 1993

## Division Restructuring Underway

**I**n a letter distributed to all employees July 12, Division President Mike Wynne stressed the importance of meeting two critical objectives during 1993:

- 1) to reconfirm our long-standing quality and reliability records primarily through an unbroken series of successful launches; and
- 2) to make GDSS a financially successful business, primarily through the re-engineering of the division's cost structure.

**"...we must be cost competitive. It's in all of our best interests."**

**— Blaine Scheideman,  
corporate senior vice  
president**

GD Corporate Senior Vice President Blaine Scheideman is working with the division to assist in the re-engineering effort. "We need to get to the core of the business," he said. "Our objective is to ensure a sustainable business into the future. That means we must be cost competitive. It's in all of our best interests."

Mr. Scheideman said that the division's financial success requires bringing costs in line with the prices the

*Continued on page 3*

## Hammond Facility Welcomes Louisiana Congressman for Special Visit

by Jan Pershal, Hammond Orbiter reporter, photos by Glenn Latino, Hammond Plant Services

**O**n June 25, one day following the House of Representatives vote against the Superconducting Super Collider program, Louisiana Congressman Bob Livingston visited the GDSS facility in Hammond. This was a previously scheduled visit.

Congressman Livingston is a strong supporter of the SSC program. He and his aides were given a factory tour by Bill Otto, factory manager, Dick Neal, Human Resources manager, and Craig Fitzgibbon, Magnet program manager.



*Congressman Livingston received a full factory tour of the Hammond Facility.*

*Continued on page 3*

## From the Editor

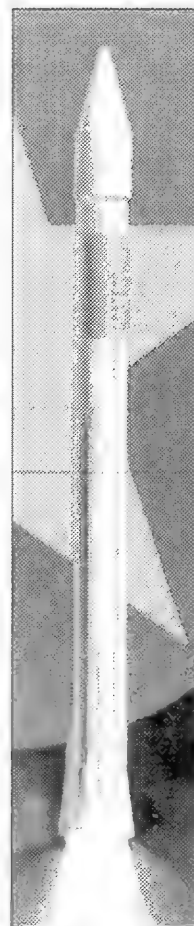
As of print time for this issue of the *Orbiter*...

AC-104 had not launched. For up to date information on upcoming launches, call the launch hotline at 573-8769.

**AND...**

GDSS Space Magnetics has been selected to negotiate on the Current Limiter contract.

Look for articles on these milestones in the next issue of the *Orbiter*.



## In This Issue

- *Proposal Development Center*
- *Bond Drive Results*
- *Orbiter on the Move*

# Proposal Poltergeists?

You may have heard about the ghosts in the Proposal Development Center, but don't worry – the center's not haunted. These ghosts are just part of several strategies used to create winning proposals.

Preparing a proposal is a team effort, consisting of estimators, contract specialists, engineers, procurement specialists and marketing managers. This concentrated effort is coordinated by the Proposal Development staff of Business Communications (part of the Business Development organization). Proposal Development Specialists (PDSs) Don Booher and Norm Thomas play a key role by defining issues, requirements, approaches, themes and win strategies for new GDSS and CLS business proposal efforts.

The proposal process all begins when the customer develops a need. This need is communicated as a specified project through various sources back to the Business Development personnel of GDSS and CLS. If the project is one that we are interested in, we ask the customer to send us a Request for Proposal (RFP).

Currently, for example, NASA wants to procure up to 16 launches through the Intermediate Expendable Launch Vehicle (IELV) program. We have a good chance of fulfilling NASA's needs, so we have requested a RFP. This is a billion dollar-plus opportunity for the company.

Meanwhile, the GDSS Sales Board, made up of staff and senior management, decides whether we should bid on this project. A proposal leader has usually been selected by this time, and this individual formulates a plan showing the value of the proposal effort to the division's business base.

"The proposal leader is usually a person who is familiar with the specific program and is capable of managing task development in response to RFP requirements," Norm Thomas said.

If the Sales Board feels the proposal effort is worthwhile based on the plan presented, the team starts preparing the winning proposal. This team, assembled from the various functional areas mentioned previously, compiles a proposal outline that meets the requirements of the customer's RFP, and develops discriminators and themes (this is where the ghosts fly in!) used to expand the outline and beef up each proposal section.

Before the proposal is sent to the customer, there are several internal reviews by technical experts who make sure that every proposal section



*Proposal Development Specialists Don Booher and Norm Thomas review sections of the Intermediate Expendable Launch Vehicle (IELV) proposal draft RFP. (photo by Dan Nash, Still Photography)*

meets customer requirements and accurately reflects our approach to those areas.

Through out the proposal development process, Business Communication's Electronic Publishing and Graphic Communications groups use advanced computer systems and creative graphic concepts to create the final professional production of the winning proposal. After a final buy-off, copies of the proposal are sent to the customer.

"There is no standard proposal timeline," Norm said. "On unsolicited proposals (those without formal RFPs), we set our own. Others have a due date of usually 30 to 90 days following issue of the RFP."

The U.S. Air Force, NASA and Department of Energy are GDSS's primary customers. Other customers include governments of other nations and various commercial entities. Each customer has its own special requirements and our proposals are formulated with this in mind.

That's why finding the ghosts in the Proposal Development Center is so important. •

*(Editor's note: The Proposal Development Center recently moved to Kearny Mesa building 24, 1st floor, south end.)*

## Proposal Center Words To Know:

- **RFP** – Request for Proposal. Defines exactly what the customer wants in a proposed procurement.
- **Sales Board** – Comprised of members of division staff who assemble to review new business opportunities and determine the bid/no-bid decision.
- **Discriminators** – Differences between us and a competitor, either good or bad, that are unique to us and significant in the mind of the customer.
- **Themes** – A key proposal message stating a discriminator in terms of a customer benefit.
- **Ghosts** – Real or perceived weaknesses. We want to highlight the competition's ghosts and negate our own.



## Division Restructuring

Continued from page 1

division can charge for its products and services in a very competitive marketplace.

"A major part of this effort will involve organizing the division in a different way," he said. "As Mike Wynne noted in his letter, we're moving to a more product and customer oriented organization. In addition, eliminating duplication in our work will significantly improve our competitive position."

Noting that the restructuring will not happen overnight, Mr. Scheideman said the objective is to have it completed by the end of the year.

"Ensuring continued integrity in our processes and further enhancing reliability are absolute essential as we make these necessary organizational changes," he said.

Mr. Scheideman said that, while anticipated infrastructure changes would primarily affect GDSS headquarters in San Diego, all of the division's offsites would be involved in the re-engineering effort.

A 27-year GD veteran, Mr. Scheideman was elected a corporate senior vice president and made part of the corporation's "turn-around" team in 1991. •

## Hammond Congressional Visit

Continued from page 1

This tour provided the congressman with information on each factory station's role in the production of the magnet, with explanations provided by technicians and production supervision. Demonstrations of the one-of-a-kind tooling involved in the production process were also given.

GDSS continues to fight for the Superconducting Super Collider funding on Capital Hill. A Senate vote on the program is expected in September. A successful vote in the Senate will require resolution by a House-Senate conference committee. For information on how you can participate in the efforts to save the SSC program, contact Suzanne Person of Space Magnetics Business Development at 77258. •

*Congressman Livingston, Craig Fitzgibbon, and Bill Otto discuss the features of the vacuum vessel that stands behind them. The vessels, which will house the magnet, are manufactured at the GDSS - Harlingen Facility.*



*Ken Miller of SSC Production (second from left) and Craig Fitzgibbon (right) explain the Hammond Facility Production and Office layout to Congressman Livingston and his two aides. Both Hammond and the Space Magnetics San Diego Office have a Lego-built model of the Hammond Facility.*

## Industry Information

**Boeing, General Dynamics, Lockheed, Martin Marietta and Rockwell International have announced that they will work together with NASA to evaluate the potential commercial space market.**

These five aerospace companies will work to identify and characterize traditional and non-traditional markets by conducting a Commercial Space Transportation Study. Their aim is to significantly increase the use of space, thereby reducing the costs of space access.

Daniel Goldin, NASA's administrator, supports the study which he calls "the type of innovative industry and government partnership that will be critical for successful future technology programs." •

**According to the *Space Fax Daily*, a State Department official has reported that the United States will drop objections to the sale of Russian rocket engines to India**

as long as Russia guarantees it will not disclose the technical knowledge needed to build such motors. •

**The GDSS Atlas 34E launch date of NOAA-I from Vandenberg AFB has been changed.**

The new proposed launch date is August 7. •

**The July 12 *Aviation Week & Space Technology* reports that the Japanese NASDA and French CNES space agencies are looking at ways to make Japan's H-2 and France's Ariane launch vehicles compatible.** •

## Space Briefs

**From Employee Benefits** – Even though the Kearny Mesa Executive Dining Room will close August 2, the main KM cafeteria will continue to operate as normal. Lunch is served at the cafeteria from 11 a.m. to 1 p.m. In-plant catering services for coffee, juice, box lunches, etc., to conference rooms will also continue without change.

**From the Dominguez Family** – Sandy and Joe Dominguez of CSC lost their home and all of its contents in a fire on May 9. They would like to thank the hundreds of people who stepped forward to donate gifts and money toward the rebuilding of their household. "The response was overwhelming," Sandy said. "Our personal disaster showed that the true compassion for one another is alive and well among mankind and is not a thing of the past as one may want to believe."

**From Community Relations** – The St. Vincent de Paul Village is holding its Summer Shoe Drive now. Bins have been placed at key locations throughout the GDSS – San Diego buildings. Please place donated shoes in one of these bins or take them to any of the 17 San Diego Computerized Cobbler locations through July 31. The shoes will be donated to the clients of the Joan Kroc Family Center (which includes little children), the Bishop Maher Men's Center and the Troussaint Teen Center.

**From Maternity Fraternity** – San Diego County is a test site for a major federal government campaign to prevent unnecessary childhood illnesses through a program called the Infant Immunization Initiative. Several medical centers in the area are providing free baby shots with no appointments necessary. For a list of participating centers, contact the *Orbiteer* at #1406.

## GDSS Bond Drive Results



*Plant Protection Officer Wayne Lindsey received all of these accessories with the video camcorder he won in the GDSS bond drive grand prize drawing. Ed Squires, division vice president—Operations, drew Wayne's name on the final day of the bond drive campaign. (photo by Bill Stillman, Still Photography)*

The GDSS U.S. Savings Bond Drive was a great success again this year. We had a participation rate of 85 percent of all eligible employees, which is a seven percent increase at Space Systems Division! Plus, 39 people won special prizes during the drive in addition to the grand prize winner, Wayne Lindsey, plant protection, was the winner of this prize – a video camcorder with accessories.

Thanks go to all of the employees who helped draw the prize winners' names, the canvassers and coordinators, and our division's chairman, John Thacker, and co-chair, Ed Squires. •

## Up! Up! and Away! The Orbiteer Moves

Effective today, the *Orbiteer* editor, along with the rest of Business Communications, has moved to Kearny Mesa building 24, 1st floor, south end. Come visit us in our new area!

Please make note of the *Orbiteer's* new extension (41406) and mail zone (K1-7092). And keep those article ideas coming! •



# Service Anniversaries

## June 1993

### 40 Years

William Marshall

### 35 Years

Louis Del Monte  
Charles Flores  
Kenneth Fouts  
Francis Hagerman  
Gilbert Hart  
Theodore Kaufmann  
Robert Morin  
David Peterson  
Jack Randall  
Wayne Sutton  
William Wallace  
John Wardman

### 30 Years

Harry Armer Jr.  
J. Kittle  
Billy Lutes

### 25 Years

James Latham

### 20 Years

Darryl Ring

### 15 Years

Margaret Bjarkman  
James Campbell  
Charles Grasmick  
Edward Kleindon, Jr.  
Peter Martinez  
Marshall McColley  
Karle Meyer  
Paula Parmentier  
Edward Rivera  
Neil Westerberg

### 10 Years

Ruth Abram  
Andrea Baldiviez  
James Behnke  
Don Bitler  
Susan Bowen  
Thomas Danaher  
Joseph Dubreuil  
Nancy Durham-Mumford  
Bruce Evans  
Michael Felchlin  
Stephen Gallup  
Patricia Gaumont  
Allen Hegemann  
Mark Henley

### 10 Years Continued

Elaine Horak  
William Houtz  
William Johns  
Thomas Kaufeld  
Kim McCall  
Wesley McNeel  
Daniel Mohr  
Wayne Mortimore  
Sonia Nava  
Monika Parks  
Mary Rameson  
Elizabeth Rodriguez  
John Schuster  
Janis Sollenberger  
Paul Sullivan  
Patrick Thibodeau  
Walter Thompson  
Loc Uy  
Timothy Valentine  
George Zirkle

### 5 Years

Alberto Aguinaga  
William Aycock  
Rolando Becera  
Stephen Berger  
Gerald Bjorkman, Jr.  
David Boedeker  
Larry Bowden  
Michael Bull  
David Chalk  
Robert Choy  
David Cooper  
Duc Dam  
James Daube  
David DeLassus  
Mickey Doty  
Deanna Eppinger  
Fredrick Fengler  
James Flynn  
Carl Gibson  
Matthew Groves  
Darren Hamer  
David Hanni  
Timothy Hauser  
James Janis  
Greg Jesensky  
Robert Jewett  
Daniel Kiefer  
K.Susi Kuklinski  
Steven Kurtz  
Todd Lambert

### 5 Years Continued

Charlene Lazarus  
Chuck Lee  
Steven Leitgeb  
Arlan Lewis  
Peter Lombrozo  
Kyndra Lotspeich  
William McNatt II  
Richard McCullough  
Lloyd Mills  
Michael Miltenberger  
Donald Nichols  
Michael Orth  
Patty Palacios  
Violeta Pingol  
Earl Powers  
Richard Pribnow  
Patti Quinney  
Jose Quintero  
Mohamed Ragab  
Jay Reeder III  
Dirk Schreiber  
William Schroeder  
Douglas Seaton  
Steve Segale  
Patricia Shelanski  
George Simone  
Joan Stephan  
William Strachan  
Neil Swanson, Jr.  
Jeffrey Thompson  
Timothy Thorpe  
Joseph Tran  
Lam Tran  
James Valdes  
Fred Valdez  
Alicia Villarreal  
Charles Wagner  
John Walker  
Paul Webber  
Constance Whitwell  
Rex Willems  
Gena Wise  
Walter Zukowski  
Jose Zuniga

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Mail Zone K1-7092**

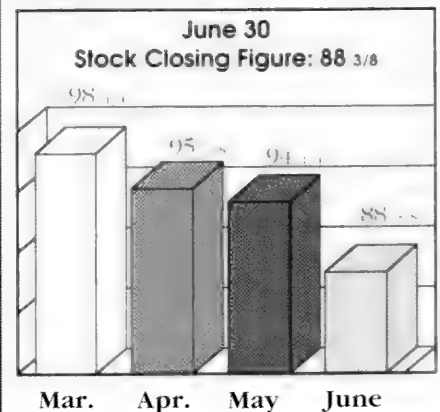
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**NEXT DEADLINE: COB  
WEDNESDAY, JULY 25**

**EXERCISE BIKE** for \$65, girl's bike for \$30; double entry doors for \$40. Atari game for \$20; TV for \$30; all excellent condition. Sharon, 271-1426

**CUSTOM EXECUTIVE HOME** for sale, prime view, Fletcher Terrace III location, perfect for family and or entertaining, save \$50K prior to public listing at \$479K, shown by appointment to qualified buyers only. Dave 448-5683

## Monthly Closing Stock Figures





## Employee Profile – Larry Foss, The Voice of Atlas

San Diego  
Quality Assurance Project  
Administrator  
Larry Foss has been selected to be the "Voice of Atlas" commentator for future commercial and DoD Atlas launches.



Larry Foss

Larry was nominated for this position because of his vast technical experience and functional knowledge of all of the launch vehicles, including the Titan Centaur. Larry also has experience in public broadcasting, making him a viable candidate.

You may recognize Larry from the three Foreign Object Elimination videos, which he produced and hosted. Prior to joining GDSS seven years ago, Larry served as a naval aviator for 20 years. During six of these years, his secondary duties included service as a Public Affairs director.

Larry said, "I am very excited to be able to have the opportunity to represent GDSS as the commentator for Atlas launch operations. All GDSS employees have the desire to enjoy and understand launch events as they happen. In this capacity, my hope is to relay information for all events, leading up to and directly following the launch through spacecraft separation, in a timely and informative manner."

Larry's first "performance" providing commentary was during the AC-104 launch •

by Michelle McIntire,  
CCAFS Orbiteer reporter

### In The Next Issue...

- Launch News
- Current Limiter Win
- Patent Awards

# Questions & Answers

The *Orbiteer* offers space for employees' questions concerning company and industry issues. Please forward your questions to the editor at **Mail Zone K1-7092**. We will try to get your question answered as soon as possible, and will print them as space allows. All questions must include the employee's name, work extension, and employee number. Confidentiality is guaranteed, but we need to verify that the questions and comments received are from employees.

**Q** I've always felt that Con-Trib is a worthwhile organization, but since Convair is now so much smaller, how are those funds being administered and what assistance is being given to our hundreds of former employees on lay-off?

**A** Downsizing at both Space Systems and Convair has resulted in substantial reductions in employee contribution levels to the Con-Trib Club. Ninety percent of Con-Trib's funds are directed to local health and human care agencies via employee designated contributions, an annual pledge to United Way, CHAD, as well as direct grants to agencies from Con-Trib. The remaining 10 percent goes to Con-Trib's Emergency Aid Fund to provide temporary emergency financial assistance to Convair and Space Systems employees. The Con-Trib bylaws strictly limit Emergency Aid

grants to active employees.

Unfortunately, employees who are laid off are not eligible to receive Emergency Aid funds from Con-Trib. (Human Resources)

## Retirees

### Susanna Bruno

Human Resources Specialist ..... 13 years

### John E. Hangartner

Engineer, Sr. .... 31 years

### Agnes M. Kratz

Engrg Services Supervisor ..... 34 years

### Frank P. Pospisil

Procurement Administrator ..... 10 years

### Raymond T. Wolf

Plant Protection ..... 8 years



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(407) 730-5017 EM/OS: MCINTIRE,M

Hammond Reporter: Jan Pershal  
(504) 545-5227 EM/OS: HR-HAMMOND

Harlingen Reporter: Noelia Gutierrez  
(512) 430-7845 EM/OS: PRELIER,R

Huntsville Reporter: Don Deming  
(205) 922-3323 EM/OS: HSVENG,SS

Space Services Reporter: Dave Bennett  
(407) 783-1236 EM/OS: KENYON,R

VAFB Reporter: Barbara Klinedinst  
(805) 734-8232 Ext. 67547 EM/OS: HRVAFB

## Employment Figures

### (Week Ending July 9, 1993)

Cape Canaveral AFS .....	555
Financial Service Center .....	92
GD Space Services .....	42
Hammond .....	193
Harlingen .....	243
Huntsville .....	16
Property Management .....	8
San Diego .....	2,776
Vandenberg AFB .....	207
Other Offsite Locations .....	34
<b>TOTAL .....</b>	<b>4,166</b>

# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

August 6, 1993

## AC-104 Carries Us into the Future

**A** Picture Perfect Launch. Nothing better could have been done to bring us back to flight. On July 19 at 6:04 p.m. EST, Atlas/Centaur 104 lifted the Air Force's DSCS III spacecraft into orbit and our morale was boosted as well.

Everything for this launch went right. We launched on the planned day, at the planned time, and placed the satellite perfectly in the planned orbit. As the launch vehicle left the pad at Cape Canaveral Air Force Station, employees' cheers could be heard across the United States, from California to Florida.

Those who could actually squeeze into the launch viewing areas had quite a sight to witness. GDSS is now on the road to recovery. After successfully completing the AC-74 anomaly review, everyone who participated on the review team was sure that everything would be fine with the next launch. How could we go wrong? Every aspect of the launch vehicle was analyzed and corrective actions were made to improve the vehicle.

But people were still apprehensive. As each event in the launch occurred precisely on schedule, sighs of relief could be heard. As Skip Mackey of the Telemetry Lab said, "We couldn't ask for a better match on the data."

*Continued on page 2*

**Right  
on the  
mark!**

## Launch

*Continued from page 1*

As the Centaur separated from the spacecraft, all indications showed that everything was going normally.

"The orbits are right smack on the money," Skip announced. "They're right where they need to be!" •

**"AC-104 was a tremendous launch and a definite step in the right direction for GDSS."**

**— Mark Van Gundy, Launch Service Mechanic, Sr.**

**"We kicked the football around the world and hit the target..."**

**— Col. Bill Files, U.S. Air Force (launch vehicles program director with the Air Force's Space and Missiles Systems Center)**



*Ben Wier*

## Ben Wier Retires

Ben Wier, division vice president and Atlas program director, retired from service at GDSS on July 30. Ben worked for General Dynamics 37 years, and played an instrumental role as co-chair for the failure and anomaly review teams over the last year.

The successful launch of AC-104 represents the future of the division, according to Ben. "With the completion of the corrective actions both in the technical hardware areas and in quality actions that have been taken, the Atlas program is now positioned for the flight success it so richly deserves. With the division's continuing emphasis on quality, reliability and mission assurance, our customer community is recognizing the Atlas as launch vehicle of the future. It is a recognition of General Dynamics as the premier provider for Best in Space delivery to orbit." •

## A Launch Commentator's Perspective

Larry Foss was right in the middle of all of the action in Florida on July 19, doing his first stint as launch commentator. "It was very exciting to be a part of the actual launch. I was impressed by the way all of the companies and the Air Force worked as a team. During all of the meetings prior to launch, I could sense a great camaraderie and mutual respect creating an overall launch team."

Larry had to coordinate his launch commentary with Skip Mackey's comments on telemetry data during the launch events. "I met Skip during my pre-launch time at the Cape. During the launch, basically I listened to not step on any of his lines. When he talked I dropped out."

Larry and Skip's comments during the launch were received extremely well by viewers. And Larry impressed everyone, especially considering how unpredictable things could have been. He prepared in advance, but nothing could get him fully ready for the real show.

"I spent a few days at the Cape going through the console activities," he said. "Even though I spoke to a number of former commentators and viewed a lot of videos I just wasn't prepared for the actual live broadcast tempo."

Look for Larry in September, when he will provide commentary for the scheduled AC-75 launch. •

## Coming Soon: New National Industrial Security Program

The federal government and defense contractor officials are working together to streamline the complex regulations that exist to protect our nation's secrets.

Under the current system, a contractor may be required to implement several different sets of security measures for each separate government customer. The goal of the revised system, called the National Industrial Security Program (NISP), is to create a single set of security regulations for all

components of the U.S. Government.

The NISP is expected to revolutionize America's Industrial Security system. The present system has been in effect since the Eisenhower Administration and was designed to protect us against communist adversaries. The end of the Cold War and the realization that some of our political allies are now engaging in intensive industrial espionage efforts are two factors leading to the revised program.

Former President George Bush

signed the Executive Order calling for the NISP a few days before he left office in January of this year. The joint committee has until January 1994 to complete work on the operating manual for the revised system.

The NISP will directly affect GDSS and all of the other 12,000-plus cleared contractor facilities in the nation. Industrial Security will provide more details on the program as they become available. •



**"I have been involved in launch operations since AC-25. AC-104 had the smoothest countdown and the most accurate and best flight of any Atlas/Centaur vehicle that I have been involved with as part of the Blockhouse launch crew."**

**— Jerry Schmitz, Launch Service Mechanic, Senior**



# A Look at the Launch

## Launch Receives Good Press

You should have seen the coverage our launch received around the country. Talk about good news!

*Space News, Aviation Week and Space Technology, Florida Today, The Associated Press, Satellite News, and Inside the Air Force* were just a few of the publications that covered Atlas'

return to flight.

And the coverage was very favorable.

### From Florida Today:

"General Dynamics Corp. scored an important success Monday with the flawless launch of an Air Force Atlas II rocket from Cape Canaveral Air Force Station."

### From Space News:

"The successful launch of an Atlas rocket July 19 after back-to-back failures should help builder General Dynamics attract new business."

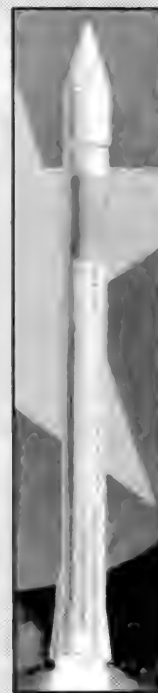
### From the Orlando Sentinel:

"The liquid-fueled rocket rose gracefully from a launch pad."

Quotes from Division President

Mike Wynne were used frequently in the articles.

"This is the first in a long string of successful launches we intend to rack up as we re-establish the reliability and quality record of our launch vehicles," he said. "I count it as a very important marketing event. It tells the world that we are back in a way that you can't explain on paper... by demonstrating reliability." •

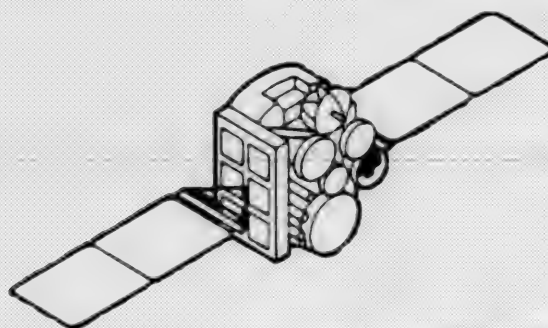


## Atlas Delivers!

by Michelle McIntire, CCAFS  
Orbiteer Reporter

Atlas/Centaur 104 placed the Air Force's DSCS III satellite well within the tolerances required by the Atlas II/DSCS III Interface-Control Document (ICD). The ICD is a contractual document between the launch vehicle and spacecraft contractors and the Air Force.

The ICD defines the technical requirements for the mission, including the geosynchronous transfer orbit. The transfer orbit parameters for AC-104 deviated from the nominal orbit by only a few percent. The spacecraft contractor, Martin Marietta Astro Space, and the Air Force are extremely pleased with the service we provided for placing their satellite into the correct, almost perfect orbit! •



## The DSCS Satellite

With the recent launch of a third-generation Defense Satellite Communications System III payload, the Air Force is able to establish the first full DSCS constellation of five satellites.

This satellite constellation provides secure communications for the Department of Defense between ships, planes and ground forces including our NATO allies and White House links. The DSCS III satellite is uniquely qualified for military missions, with anti-jam capabilities and sophisticated survivability enhancements.

Before the launch aboard AC-104, one DSCS satellite already in orbit was 11 years old, but had been designed for only five years of use. Martin Marietta Astro Space designed the satellite which will serve all branches of the Defense Department, coordinated by the Defense Communications Agency. The spacecraft was built under contract to the U.S. Air Force. •

### Here are the orbit specifics:

#### Perigee (point of orbit closest to Earth):

Contractually, we were allowed plus or minus 1.5 miles. We were within six tenths of a mile!

#### Apogee (point of orbit farthest from Earth):

Contractually, we are allowed plus or minus 70 miles. We were within 8.5 miles!

#### Inclination (angle orbit makes with plane of equator):

Contractually, we are allowed a tenth of a degree. We were within one thousandth of a degree!

## We're Recycling Peanuts Now!



**No, not the kind you eat,** but the styrofoam peanuts GDSS gets every day in packages containing incoming material from vendors. The people in the Receiving Inspection department (pictured above with their collection) started this effort. "We're doing our part for recycling," Joe Archutowski of the group said.

These styrofoam peanuts used to be thrown away, but with the help of Tom Edwards in Facility Services, they are now picked up and recycled. The styrofoam in the bags pictured above represent seven cubic yards of potential waste, so it's easy to see that through their efforts, the folks in Receiving are doing a great job.

But don't think you can't participate! If you have styrofoam in your area that would ordinarily be thrown away, contact Tom Edwards at 32905 and he'll let you know how you can help with our division's recycling efforts. •

## CPI CONNECTION

*This CPI question was gathered through the Orbiteer's Question & Answers section. Members of the CPI Communications Committee and John Thacker, division vice president - Quality Assurance, provided the answer to this very timely question.*

### What is CPI?

CPI - Continuous Process Improvement - evolved from the term "TQM" or Total Quality Management, which has been in practice at Space Systems since 1988.

TQM consists of Continuous Process Improvement activities that involve integrated efforts to improve performance at every level. This improved performance focuses specifically on quality, cost, schedule, mission, need and suitability.

CPI integrates fundamental management techniques, existing improvement efforts and technical tools under a disciplined approach focused on continuously improving processes.

There are eight basic principles of CPI: 1) Quality is customer-driven, 2) Focus on process as well as results, 3) Prevent defects rather than inspect defects, 4) Measure and reduce process variation, 5) Use the experts in the workplace, 6) Make fact-based decisions, 7) Communicate and provide feedback vs blame, and 8) We are all one team.

The ultimate goal of CPI is to increase customer satisfaction. CPI is a journey, not a destination, and requires us to make many shifts away from old ways of thinking and doing business. •

## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly, be kept brief, and will be printed as space permits. Items for sale or rent cannot be listed in more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Ridesharing and lost/found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,  
Mail Zone K1-7092.**

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**NEXT DEADLINE: COB  
WEDNESDAY, AUGUST 11**

**WOOD BEDROOM FURNITURE**, includes 9-drawer dresser, mirror, chair, all very good condition, set \$150. Ellen 487-1927

**CHARGERS TICKETS AVAILABLE**, two tickets for preseason game, located in loge, under overhang between 30 & 35 yd line, August 21-Phoenix Cardinals, \$26 each ticket. Carolyn 277-7921

**1972 INTERNATIONAL SCOUT**, 4x4, new clutch, rebuilt transmission, 258 c.i. 6-cyl. climbs phone poles. San Felipe vehicle, \$1,200. Call 270-7350

## DPRO Becomes DCMO

The Defense Plant Representatives Office (DPRO) has been replaced by the Defense Contract Management Office (DCMO) Space Systems. Air Force Major Robert Davis has assumed command of the DCMO.

This change was part of a major reorganization and downsizing in defense organizations. This is part of a streamlining effort in the chain of command structure.

The personnel working GDSS defense contracts for the DPRO have been planning and functioning as a DCMO for almost a year. There are some new personnel, but the major impact to the division is the new name - DCMO Space Systems. •



## Employee Profile – Mark Liggett, A Volunteer for Education

In addition to his daily duties as an Engineering specialist in Propulsion and Cryogenics – NASA programs, Mark Liggett of the Huntsville facility has taken time out to become involved with a local high school.

As a volunteer lecturer for the Huntsville Continuing Education Resources program, Mark has spoken at several local schools using the sport of ice hockey and his work in aerospace to provide practical discussions of thermodynamics and kinetics.

Mark first became involved with the Hazel Green High School as an invited guest lecturer to the senior physics class. Since then, he has volunteered his time as an industry sponsor and instructor to prepare an Academic Scholar team from the high school for an Alabama State academic tournament.

This year's tournament, sponsored in part by the Junior Engineering Technical Society, was held at the University of Alabama, Huntsville, on February 19. With Mark's coaching and leadership, the Hazel Green team placed third in the TEAMS (Test of Engineering Aptitude, Mathematics and Science) competition.

Because of Mark's involvement, the high school has also been selected by the GDSS – Huntsville office to receive a donated Apple Macintosh Plus computer. Mark's relationship with the high school has definitely proven to be beneficial to all! •



Mark Liggett (left) and Helen Smith, a teacher at Hazel Green High School, show off the Academic Scholar team and their awards.

by Don Deming, Huntsville Orbiteer reporter

## GDSS Establishes Info Lines

Formal negotiations between General Dynamics and the International Association of Machinists and Aerospace Workers (IAM&AW) began July 7. A 24-hour Negotiations Hot Line, 974-1234, has been established to provide recorded messages about the status of negotiations as we approach the August 15 contract expiration date.

Beginning August 9, the Space Systems Information Center, 694-9111, will be staffed with people who can answer your questions concerning the contract talks. Hours of operation will be August 9 – 13, 9 a.m. to 2 p.m., August 16 and beyond, 7 a.m. to 5 p.m. •

**Corrections:** Dirk Schreier's name was misspelled in the Service Anniversaries list last issue. We apologize for this error. and the Department of Energy has not released a formal announcement of the Current Limiter award, so we cannot provide information on this negotiation at the present time.

**In The Next Issue...**

• **Smithsonian Award**

## Mat Frat Offers "Fitness for Two" Seminar

Join the Maternity Fraternity on August 10 at 11 a.m. to learn about "Fitness for Two." This seminar, which will be held in the Kearny Mesa building 24 Conference Center, will give guidelines on exercise during pregnancy. GDSS employees and spouses are welcome to attend. Please RSVP by calling Elaine Briggs at 39548 or Becky McDonald at 44135. •



The *Orbiteer* is printed on recyclable paper. After reading, please discard in the colored paper recycle bins.

## Employment Figures

(Week Ending July 23, 1993)

Cape Canaveral AFS .....	555
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San Diego .....	2,764
Vandenberg AFB .....	207
Other Offsite Locations .....	33
<b>TOTAL .....</b>	<b>4,156</b>

## Editor's Note:

I will be on vacation August 5 – 24. A team from Business Communications has been organized to put together the next issue of the *Orbiteer*. If you have any questions or comments during my absence, please contact Terry Banderas at (619) 974-1404. Thank you! •



The *Orbiteer*, Space Systems Division's employee newsletter, is published biweekly. Submitted articles will be printed as space permits, at the discretion of the editor. All submittals may be edited per space requirements. Send items of interest to:

**Orbiteer**

**P.O. Box 85990, Mail Zone K1-7092  
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(512) 497-7855 EM/OS PRELFR,GR

Huntsville Reporter: Don Deming  
(205) 922-3423 EM/OS HSVUNG,SS

Space Services Reporter: Dave Berman  
(407) 783-1256 EM/OS KENYON,R

VAIB Reporter: Barbara Klinedinst  
(805) 734-8232 FAX 67547 EM/OS HRVAIB

# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

September 3, 1993

## GDSS Huntsville Office/MSFC Joint IRAD Continues Successful Testing

by Don Deming, Huntsville Orbiteer Reporter

For the last several years, Space Systems' Huntsville Office has had a growing relationship with the Marshall Space Flight Center (MSFC), located in Huntsville, AL. Our local office expansion in 1991 was due in part to joint independent research and development (IRAD) agreements reached between GDSS and MSFC.

One of the joint IRADs is the "Propellant Conditioning Test," which evaluates the fluid temperature profile in a full-scale rocket engine oxidizer feed duct. Since October 1992, a team consisting of NASA and GDSS personnel and NASA support contractor employees has designed, built and tested two separate



## Hammond Gets New Logo

by Jan Pershal,  
Hammond Orbiteer reporter

The Hammond Facility recently held a contest for employees to design a logo to represent their facility. Rhonda Smith, Quality Assurance management support and a member of the Hammond Communications Committee, won this contest and was awarded \$50 for her winning design (shown above).

The logo design has been silk-screened onto T-shirts that are sold at the facility. Caps, cups and golf shirts featuring the logo will soon be available. The red, white, blue and gold design is also used on the Hammond employee newsletter, *The Communicator*. Congratulations, Rhonda! •



Continued on page 4

The NASA GDSS team shows off one of the test articles at the MSFC Cold Flow Test Facility. GDSS employees shown are: Mike Orth (back row, second from left), Dr. Gopal Mehta (back row, second from right) and Bill Stone (back row, far right).

## Editor's Note to San Diego Employees

Over the last several months, we have been printing both four-page and six-page issues of the *Orbiteer*. The same quantity of the newsletter is printed regardless of page length. However, we have noticed people are not counting out the copies they are picking up with the paychecks for distribution. This is causing us shortages on four-page-issue days, as the issue is not as thick and people are picking up too many.

I would appreciate it if you could help out by picking up only the number of copies that you need for distribution from the Time Audit window. That way everyone will be able to enjoy the *Orbiteer*. If you find you have picked up too many, please feel free to return any extra copies to me at MZ K1-7092. Thank you!

## In This Issue

- MRP II Curriculum Team Introduction
- Vandenberg Safety Awards

# Harlingen Facility Announces Scholarship Winners

By Noelia Gutierrez, Harlingen Orbiteer Reporter

Space Systems Division's Harlingen Facility initiated its first scholarship competition for employee dependents who will enter college this fall.

Scholarships awards were based on the following strict criteria:

- Enrollment as a freshman in a four-year degree program
- Overall high school performance, including leadership and honors
- Work experience
- Potential to succeed
- A statement of educational and career goals
- Recommendations from school officials
- Participation in school and community activities

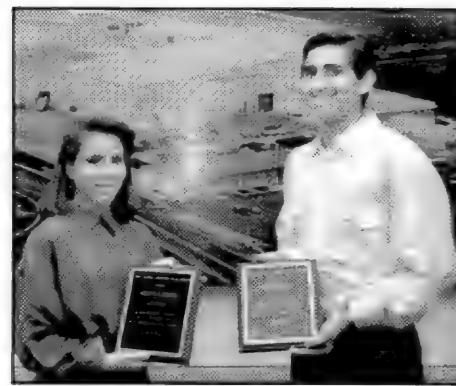
This year's winners of two \$1,500 GDHF Director's Scholarships are David Salinas and Christina Barrera.

David is the son of Martin Salinas of the Finance Accounting department. He graduated as valedictorian in his Santa Rosa High School class. His overall performance demonstrated a strong record of participation in sports programs, the Honor Society, and enrichment activities focused on computer science, math and journalism. David will be pursuing a bachelor of science degree in chemistry with the ultimate goal of a career in the medical field.

Christina Barrera, daughter of Clemmente Barrera of the Quality Assurance Engineering Services

department will study for a business degree with a focus on employment in a business environment and active participation in community affairs. Christina's high school performance at San Benito High showed strength and balance in multiple pursuits, including participation and leadership in student and church organizations, academics, community services and achievement awards.

GDHF honored the winners and their families with a formal presentation of the scholarship awards and plaques. Congratulations to both these deserving winners and their families! •



*Harlingen scholarship winners Christina Barrera (left) and David Salinas (right) proudly hold the plaques commemorating their outstanding scholastic achievement. (photo by Lloyd Nye, Harlingen Facility)*

## Introducing the MRP II Curriculum Team

These individuals are part of a team that is very key to Space Systems Division. They are members of the Curriculum Development team responsible for all Manufacturing Resource Planning II training materials and user guides. They also help in the actual training of employees who will use MRP II. Thanks to these dedicated individuals, we have a training program that supports this division initiative, changing the way we do business for the better. •



*Pictured above: (back row) Matt Wieland of Manufacturing Engineering, Gary Rankin of Contracts and Estimating, Wayne Watson of Procurement, Tony Ventresco of Design Engineering, Brad Yates of Inventory Control. (Front row) Kimberly Lostetter of Master Scheduling, Anita Heckathorn of Manufacturing Engineering, Jeannie Scott of CSC (Curriculum Development coordinator), Cynthia Gute of Capacity Planning and Shop Floor Control, Chris Oswald of Material Planning, and Doris Ivanov of Finance. Not pictured: Mike Swineford of Dock-to-Stock, Kelly Stephenson of Finance, Denise Stevenson of Finance, Ken Higgins of Quality Assurance, Kyle Keath of Procurement, Jim Sherman of Capacity Planning and Shop Floor Control, Jean Shunahan of Accounts Payable (PSC), Mark Poynter of Inventory Control, Keith Schick of Procurement Quality Engineering, Joe Archibutowski of Receiving Inspection, Nancy Smidt of Contracts and Estimating, and Tim Welch of Quality Assurance — now located at the GDSS-Hammond facility.*

## Industry Information

According to the Associated Press, **the NOAA-13 satellite launched on GDSS's Atlas E on August 9 is still not operating.** NASA has established a board to investigate the problem.

After a successful launch, the satellite began operation but went dead around August 21. •



## Space Briefs

**From Human Resources** – The Tuition Reimbursement Program has been cancelled effective August 18. For more information, contact your Human Resources representative.

**From the Convair Alumni Association** – B.J. Long, author of *History of the Sea Dart*, will be present at the group's September 21 luncheon to be held at 12:45 p.m. in the Kearny Mesa Plant cafeteria. Autographed copies of the book will be available for \$10. The Sea Dart, the world's first delta-wing seaplane and the first water-based aircraft to break the sound barrier, was built by Convair in the early 1950s.

**From CRA Travel** – Special rates are now offered on trips to Australia. Call and find out about the deals to the Great Barrier Reef, Sun and City Cairns and Sydney. The Anaheim Marriot and Pan Pacific Hotels are offering special packages as well. Contact CRA Travel at 38248 for more information.

## Classifieds

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**NEXT DEADLINE: COB  
WEDNESDAY, SEPTEMBER 8**

# Vandenberg Reaches Safety Milestone

by Barbara Klinedinst, Vandenberg Orbiteer reporter

Earlier this year, 12 of 15 eligible departments at GDSS-Vandenberg AFB accomplished a major safety milestone. They worked over 1,000 work days without incurring a lost-time injury.

To commemorate the achievement, a hamburger and hot dog barbeque was presented to employees in the following departments:

984-1, 984-3, 984-4, 984-6, 985-4, 985-7, 986-1, 986-3, 986-4, 986-6, 986-7 and 986-8.

Congratulations to all for a job well done! •



*Outstanding safety employees at Vandenberg enjoy their barbeque.*

**286 10 MHz Hyundai**, 40 MB, 1 Meg RAM, VGA Monitor w/Epson LQ570 (24 pin) printer, works perfectly. 2 yrs old, \$500, some software incl. Ellen 487-1927

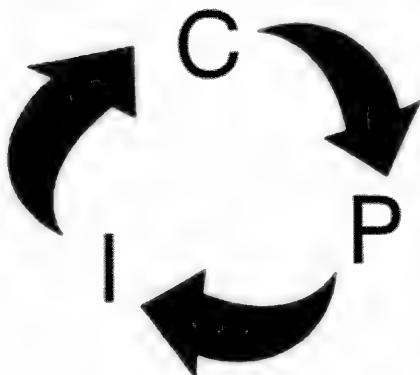
**WINDSURFER**, 12 ft, great cond., plus brand-new (never used) sail and car rack, \$400. Dave 452-6442

**LOST OR MISPLACED**, 1 med. brown packing box with "205J-LAH" written on it, if found please return to Space Systems government employee, Louisa Hanlon, KM 24-2, reward offered. Louisa ext.43075

**SCUBA GEAR**, 2 yrs new, BC, regs, tank, wet suit (XL), weight belt (shot head), fins, boots, gloves, dive log book, mask, \$500 OBO. Al 693-3806

**QUEEN SIZE BED**, Xlt. cond., used in spare bedroom, incl. box spring, mattress, and frame, \$100 OBO. Al 693-3806

## CPI CONNECTION



## CPI Boasts New Logo

The Continuous Process Improvement (CPI) coordinators have chosen the logo shown at left for their organization. The design symbolizes the continued progress required in the commitment to process improvement.

Processes are a valued commodity. They must have owners who take responsibility and commit to making the processes more effective. Each contribution you make toward improving processes increases profits, efficiency and employee work morale.

The CPI coordinators are the sounding boards for process owners. They provide the tools to help the processes reach their highest value.

This logo will accompany future *Orbiteer* articles on Continuous Process Improvement. •

## Employee Profile – Rich Bailey, Sailing Aficionado



by Darlene Mitchell, Hammond Facility

Hammond Facility Chief Engineer Rich Bailey loves sailing. After retiring for four years from General Dynamics (between 1987 and 1991), Rich designed and built a 32-foot sailboat of Ferro cement, which was christened *Edelstein*, meaning *precious stone* in German.

To test the worthiness of this boat, Rich and a friend set out to the Hawaiian islands from San Diego on June 4, 1989. During the 24-day journey, they only saw two other boats. When they docked at Maui, fate played a hand – Rich met his true love, Barbara. After staying in Maui for two months, he returned to San Diego. Barbara later joined him.

Rich came back to General Dynamics in 1991 to work on the SSC program. He was originally hired by GD in 1957 as a test engineer.

In the meantime, he has sold the *Edelstein* and purchased a new 32-foot Catamaran named *Kat Kan Do*. Rich and Barbara live on this boat in Mandeville, LA.

*Rich Bailey*

## Huntsville Office IRAD

Continued from page 1

sloped 12-inch-diameter insulated feed ducts.

The highly instrumented ducts were designed and provided by GDSS, with MSFC providing the test facility, technical and engineering support and liquid nitrogen cryogenic test fluid. GDSS identified the test requirements and participates in the data analysis.

Over 70 tests have been conducted using the feed ducts and more tests are planned.

Results of the test program, shared between GDSS and NASA, will be used to develop design guidelines to reduce the cost of future launch vehicles by eliminating ground propellant conditioning systems and

procedures, and to benefit the future computational fluid dynamics (CFD) analyses by improving the current CFD codes.

This joint IRAD is an illustration of the leverage GDSS enjoys from the IRAD dollars spent at the Marshall Space Flight Center. •

## AC-75 Launch Update

At print time for this issue of the *Orbiteer*, the launch of Atlas/Centaur 75 was scheduled for 6:59 a.m. EDT on September 3 – too late for us to provide information on the event in this issue.

**Look for full coverage on this Atlas I launch in a future *Orbiteer*! •**



The *Orbiteer* is printed on recyclable paper. After reading, please discard in the colored paper recycle bins.

### In The Next Issue...

- Summer Shoe Drive Results
- SSIP Rates of Return
- Watch for Computer Viruses

### Employment Figures

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GENERAL DYNAMICS SPACE SYSTEMS DIVISION

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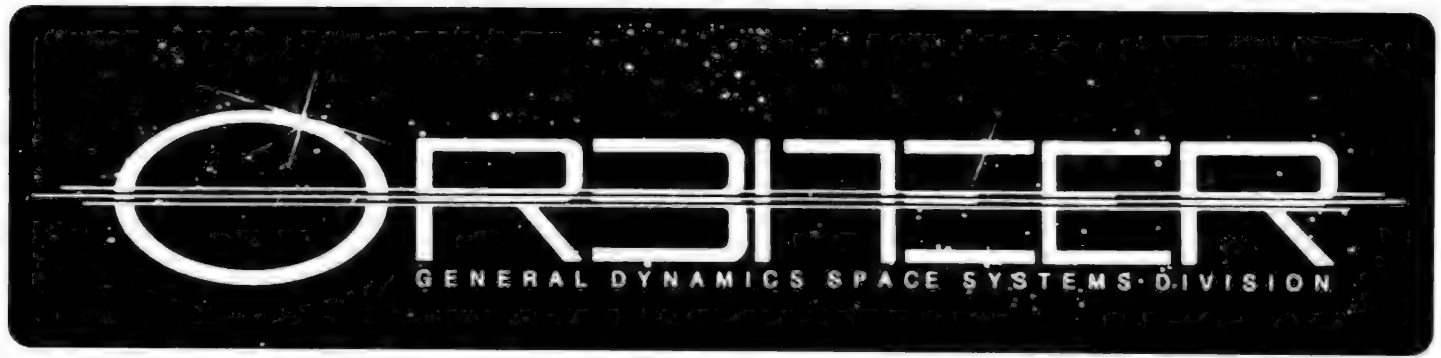
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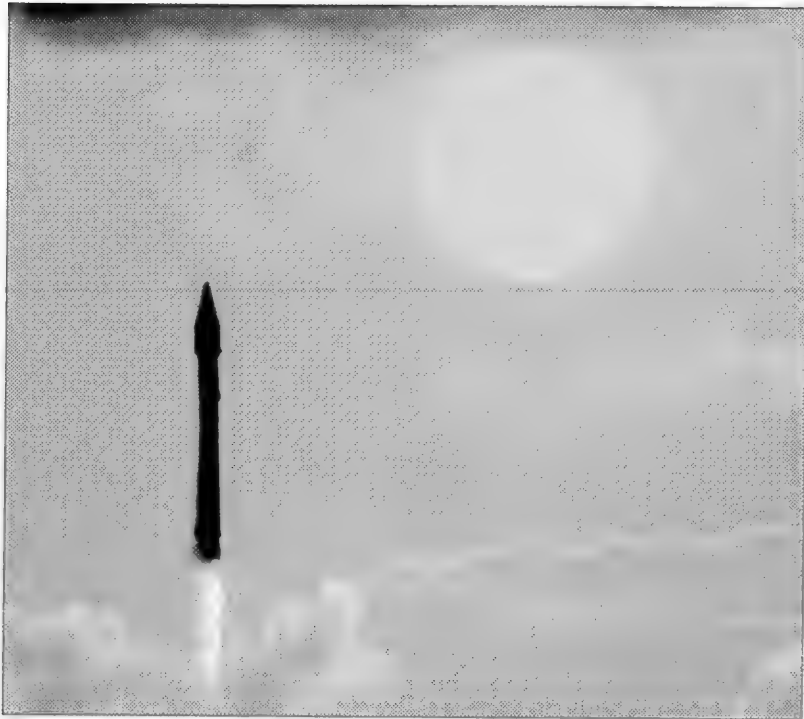


*A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division*

**September 17, 1993**

# Proving our Dual-Coast Capability

**G**eneral Dynamics Space Systems Division recently celebrated two milestones that prove we are the leader in providing dual-coast launch capabilities. With the recent successful Atlas launches from Cape Canaveral Air Force Station and our conversion of Space Launch Complex 3E at Vandenberg Air Force Base to launch the whole Atlas II family, we are demonstrating that we have the power to support our customers' requirements. •



*Photo at left: The AC-75 launch captures a beautiful sunrise as its backdrop. (photo by Michael R. Brown). Photo above: Capt. Chuck Arvey, of the Air Force's Atlas Program Office, speaks at the SLC-3E Ceremony. (photo by Susan Goldman, Santa Maria Times)*

## AC-75 Continues "String of Success"

**A**s printed on the front page of September 4's *San Diego Union-Tribune*, Atlas Centaur 75 carried a UHF satellite into orbit as part of our "String of Success."

The Atlas I lifted off Space Launch Complex 36B at 7:17 a.m. EDT on September 3, representing the third consecutive successful launch for Space Systems Division in three months.

This was the first successful Atlas I launch since the anomaly that occurred during the last UHF flight in March of this year, and the division's employees

*Continued on page 3*

## SLC-3E Activation Ceremony Marks Start of West Coast Refurbishment

**W**ith a flip of a switch, General Dynamics Space Systems Division began converting Space Launch Complex 3E at Vandenberg Air Force Base for

*Continued on page 2*



## West Coast Conversion Officially Begins at VAFB

Continued from Page 1

future Atlas II, IIA and IIAS launches.

On August 18, 100 Air Force and General Dynamics visitors attended the activation ceremony held at SLC-3E, which saw its first Atlas launch in 1961. But instead of seeing the VIPs shovel dirt as at a ground breaking, guests saw the flipping of a switch that lowered the umbilical master at the complex for the last time.

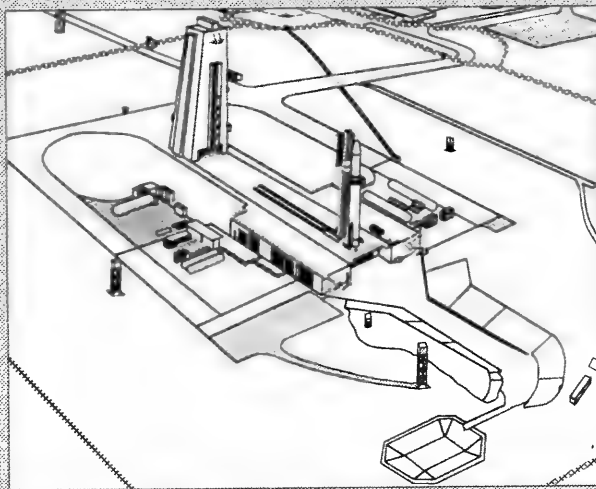
"We are going to return the umbilical mast to its horizontal position and that will be its last and final operation before it's taken out next week under the dismantling contract."

Capt. Chick Arey of the Air Force's Atlas Program Office said.

Under the SLC-3E conversion, the existing mobile service tower will be dismantled and a new one will be constructed, along with an umbilical tower and Centaur propellant supply systems. The remote launch control center on North Vandenberg will also

be modified to accommodate SLC-3E, replacing the existing SLC-3 blockhouse.

Some of the older systems currently in place at Vandenberg will be reused, with duplication of system designs used at Cape Canaveral Air Force Station, FL, according to Ed Bock, GDSS SLC-3E Ground Support System program director.



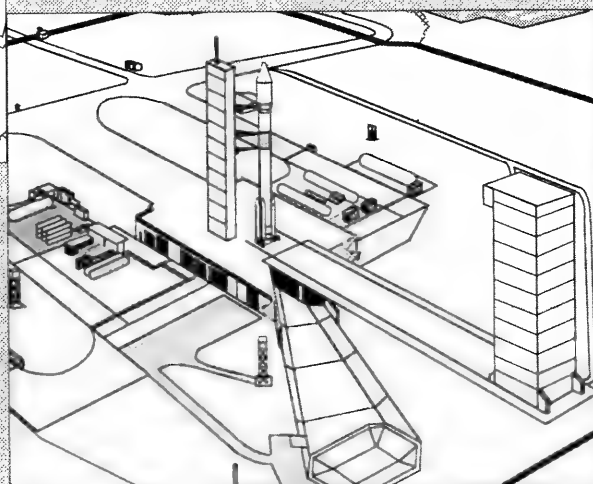
*The SLC-3E conversion at Vandenberg AFB will take the facility currently in place (drawing topleft) and modify it for Atlas II, IIA and IIAS launch use (drawing at right). Changes include building a new mobile service tower. Launching capability should be ready in late 1996.*

"Welcome to a government program that should make even the most cynical taxpayer proud," Ed said during the ceremony.

"Conversion of this launch site is an outstanding example of a cooperative effort between government and industry to enhance our nation's space launch capability."

Dismantling activities have begun and erection of the new facilities will start in mid-1994, with completion of the ground support system scheduled for May 1996. The site will be capable of launching Atlas II, IIA or IIAS vehicles in late 1996. This capability, not previously available at Vandenberg, will permit

Continued on page 3



## SLC-3E Teamwork Evident in Computer Acquisition

By Capt. Betty Bennett, DCMO

The Space Launch Complex 3E (SLC-3E) refurbishment is being accomplished in a team environment. But can the government and the contractor (GDSS) truly be a team? Those working on SLC-3E recently proved it.

The SLC-3E project requires computer equipment for its launch control system. After the suppliers (Harris Computer and Sun Microsystems) notified GDSS that we would receive a substantial discount if an order for this computer equipment was received before the end of

the month, the division drew up a purchase order. With acquisitions of this kind, the Federal Acquisition Regulation (FAR) requires the contractor to verify that the government does not have this computer equipment in surplus. That's when the teamwork really began.

Jeff Owens of GDSS Procurement and Vince Barrord of the DCMO worked closely with the System Program Office and the Defense Automation Resource Information Center (DARIC) to expedite the certification of nonavailability for the

computer equipment. Jeff and Vince were able to tailor the information required and faxed the final data to the point of contact at DARIC in Cameron Station, VA, three days before the deadline.

As a result of this teamwork, DARIC sent the certification to DCMO within two working days and GDSS received the discount on the equipment, saving the SLC-3E project as much as \$375,000. It's quick thinking and a good working relationship that make such good news events happen. •

## VAFB

Continued from Page 2

placement of U.S. Air Force and NASA intermediate-class payloads into polar orbits.

"The Atlas II family of launch vehicles and the newly modified SLC-3 East will provide a greatly needed capability to our West Coast spaceport," Capt. Arey said. "Like in the movie 'Field of Dreams' when we are done building it, four times a year they will come."

Twenty-eight Atlas vehicles have launched from Vandenberg's SLC-3 in the last 32 years, most recently an Atlas H in 1987.

"Atlas has been in there from day one and will be in there for years to come," Col. William Files, Space Missile Command director for medium launch vehicles, said. "Atlas is a mainstay in the medium lift category in the U.S. Air Force."

GDSS received the contract award to modify SLC-3E in late 1992. We are the integrating contractor for the site's ground support system, and designer and supplier of the aerospace ground equipment. Bechtel National, Inc. is our subcontractor responsible for the design and construction of all facility buildings and equipment. •

## AC-75 Launch

Continued from Page 1

were ready to see this historic sight. About 120 San Diego personnel came into work at 4:00 a.m. PDT to watch the launch in the Kearny Mesa Building 24 conference center.

As views of the launch were shown on the two large screens in the center, everyone held their breath, watching the rocket soar upward in the clear blue sky, with the sunrise as a backdrop. Television coverage of the event was perfect, as event after event could be viewed in the early morning sky. Spectators at the launch site in Cape Canaveral, FL, also had a great view of this launch, many stopping to watch as they headed into work.

**"Congratulations to our Atlas big brothers on your successful launch! Two successful American launches in one week! Atlas and Delta – Restoring America's Pride in the Space Program."**

*– From a flyer distributed around CCAFS by McDonnell Douglas personnel, following successful launches of both Atlas and Delta that week.*

Skip Mackey of the Telemetry Lab, who was recognized as a "living legend" at the end of the televised broadcast, provided some laughter to the tension-filled morning when he announced, "Both Centaurs appear to be burning well; both Centaur engines that is."

Presently, the satellite is in the proper parking orbit and will be ready for use in mid-November.

This was an important launch for our division, as we are under contract with Hughes Space and Communications Company to launch nine space-

craft in the U.S. Navy Ultra-High Frequency (UHF) Follow-on program. These satellites are replacing the Fleet Satellite Communications and Leasat spacecraft presently supporting the Navy's communication network.

This launch also strengthens our reputation in the launch industry. "We are on our way to reestablishing the reliability record that historically has been the pride of Atlas," Division President Mike Wynne said.

Perhaps Engineering Administrative Specialist Leanne Foley, one of the early bird launch viewers in San Diego, summed it up best: "It was worth getting up at 3 a.m. to see this great launch." •

## Don't Let Computer Viruses Get You!

Computer viruses can generally fall into two categories: malignant and benign. Whether your system is infected with either type of virus, the results are the same—productivity is reduced and data lost.

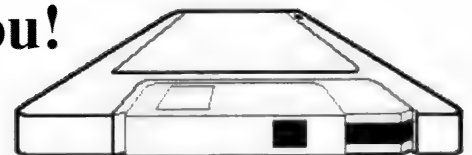
Malignant viruses are intentionally written to be destructive, with malicious intent on the part of the virus designer. Conversely, a benign virus may not have been written to be intentionally harmful, but it could cause your system to behave erratically, ultimately causing data loss due to bugs in the virus program itself.

Because of these potential problems, all IBM personal computers, compatibles and Macintosh computer systems at GDSS should have anti-virus

software installed on them. If a computer in your area does not have this special software on it, please contact Information Resource Management at +3737.

Here are the 10 anti-viral commandments of safe computing, which should help you cut down on the risk of contracting a computer virus.

1. Limit the exchange of disks containing executable code between systems. Be aware of boot sectors on data disks.
2. Reduce or eliminate the use of public domain or shareware software and programs.
3. Don't insert your system disks into another computer.
4. Write-protect all diskettes containing



applications software.

5. If running on a floppy-only system, boot from only one clearly labeled write-protected diskette.
6. Never boot a hard disk system from a floppy unless it is the original write-protected system master.
7. Never execute programs of unknown origin.
8. Limit the transmission of executable code over networks and communication links.
9. Don't use network file servers as work stations.
10. Never add data or programs to system master diskettes. •

## Procurement Group Recognized for MRP II Implementation

Procurement management and the Manufacturing Resource Planning II organization recently recognized members of the Procurement organization for successfully bringing MRP II into their business processes.

As of August 2, 1,077 buy parts were on-line in the PROCUREMENT D portion (or PROC D) of the MRP II software. Currently, eight Procurement buyers and eight approvers use the PROC D system to purchase the Atlas booster buy part requirements for Plant 19.

PROC D provides the buyers with the following benefits:

- Electronic work queue
- On-line bid and purchase order creation approval statusing
- On-line bid history
- Electronic memo capability

Use of the new software gives buyers the ability to process their work more efficiently while working within one truly integrated system. In addition, the system provides Procurement's internal customers – the employees of GDSS – with the ability to see their requirements being processed, on-line, through all stages of the buying process.

Procurement Technical Buyer Myron Monroe processed the first purchase order in the MRP II system on August 3. Before this, the users of the PROC D system participated in 67 hours of hands-on training as well as weekly informal training meetings.

Myron and the other 15 Procurement personnel participating in this implementation process were given a special luncheon at the CRA in recognition of their efforts. Ron Stoneburner, division vice president – Contracts, Estimating, & Procurement, was present at this luncheon and said, "We're behind MRP II and it is the thing we live on,... the critical element. We're off and running, and we're doing well."

Wayne Watson, lead trainer for the PROC D implementation, presented team members with Certificates of Completion for the PROC D training and congratulated the team for their outstanding involvement in implementing the system in the production process.

Myron and Material Staff Specialist Kathy Milhaud received Best in Space awards for their contributions to the implementation, with Kathy being recognized for 100 percent accuracy in completing the MRP II procurement conversion.

Procurement's next MRP II milestone occurs in October, when they will have 1,900 buy parts on-line. During the first quarter of 1994, the conversion will be completed on airborne requirements, bringing the MRP II process on-line at Kearny Mesa. •

*These Procurement team members were recognized for their efforts in the MRP II procurement conversion. Back row: Wayne Watson, Kyle Keath, Bob Orr, Mark Griffith, Doug Vaughan, Myron Monroe, and Fred Sanders. Front row: Ann Stonecipher, John Jodka, Patty Pierson, Sharon Narang, Laurie Linaig, Kathy Milhaud, and Teresa Hegarty (photo by Dan Nash, Still Photography)*



## Voice Mail Power: Use the System to Your Maximum Advantage

Voice mail systems, such as AUDIX, can stretch your time and abilities, but it can also stretch people's patience if you don't use them correctly. Follow these tips:

*When leaving a message on voice mail:*

- Give your name and number first, so that if you're cut off the receiver will know whom to call back.
- Instead of "please call," leave a detailed message that's concise but complete.
- Offer a convenient time for the person to call you back, or state when you plan to call again.

*When using your own voice mail:*

- When you leave for lunch or meetings, forward your calls directly to the phone mail system so that it will answer after only one ring.
- Change your message when you go on vacation or plan to be away from your desk for more than a few hours.
- Call yourself and listen to your own greeting. Do you sound pleasant or monotonous? Practice until your message sounds relaxed and comfortable.
- Follow the "Sundown rule": Whenever possible, return calls the same business day.

*(The Working Communicator, Lawrence Ragan Communications, Inc., Chicago, IL)*



# Service Anniversaries

## August 1993

### 35 Years

Vito Tocco

### 30 Years

Duane Mealey

### 25 Years

Loretta Chapman

Vernon Like

Arthur Nenashi

### 20 Years

Emmett Brown

### 15 Years

Annon Adler

Daniel Bergen

Tommye Bond

Carol Britton

Carlyle Brown

Michael Capossere

Robert Charity

James Davis, Jr.

William Hickey, Sr.

Robert Laff

Gloria Manelis

Traves Smithers

Monika Stevenson

Larry Vincent

Laurall Weidenkeller

### 10 Years

Daniel Aeling

Carol Aguilar

Conwell Avant, Jr.

Lisa Baumgarth

Daryl Bever

Howard Biegler, Jr.

Cheryl Biernacki

Leslie Boynton

Gerald Bradfield

Jay Breidenbach

Leslie Browne

Walter Buechele, III

Margaret Burns

Mary Campbell

Brian Collins

William Eggert

Dan Eimers

Therese Fournier

Jack Graham, Jr.

Stephen Hajduk

Kenneth Higgins

Alda Jorgenson

David Kuhns

Craig Langford

Nancy Lazar

Richard Neal

Laura Olsen

### 10 Years Continued

Victoria Paris

James Parise

Charles Revelle

Richard Rogers

Gerald Schwipper

William Solano

Edward Tabbert, Sr.

Timothy Tijerina

Minh Tran

Herbert Vitt, III

Jeffery Washburn

Betsy Young

### 5 Years

Daniel Abacherli

Ricardo Arman

Lawrence Benninger

Thomas Benson

Susan Botta

Kristin Bouchard

Richard Bryant

James Bushway, Jr.

Jeraldine Clayton

Marc Corona

Michael Crowley

Donald Daily

John Dalessandro

### 5 Years Continued

Marcus Day

Edward Dzema, Jr.

David Estrada

Ignacio Fletes

Ramon Flores

Michael Follmuth

Christine Gladfelter

Donnie Glenn

Cathleen Gordon

Mark Gorrell

Francesca Gosser

Marvin Gray

Frank Greer

Rickey Hamilton

Teresa Hegarty

James Herndon

Daniel Hinojosa

Margaret Holmes

Miriam Hunt

Cary Johnson

Dung Le

Karl Leaf

R. Lindsey

Jennifer Macauley

Raul Mercado

James Migas

Christopher Mirelez

### 5 Years Continued

James P. Morgans

Thomas Myers

Leonard Neiman

Lynn Neuhardt

Philip Nordhues

John Olds

Timothy Pelham

Mostafa Pourmand

Johnny Province

Lynda Rathgeb

Daniel Rodriguez

Eric Rothe

Patricia Santi

Donald Schramm

Edna Seggie

Michele Silva

James Smith

Kory Smith

Israel Solis

Karen Stiner

Benjamin Tague

Richard Waterman

Grant Williams

Elizabeth Winkelman

Steven Wise

Linda Young

## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly and be kept brief. Items for sale or rent cannot be listed more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Ridesharing and lost/found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,  
Mail Zone K1-7092**

Classified ad information appearing in the *Orbiteer* comes from many sources. The *Orbiteer* and the General Dynamics Corporation do not assume responsibility for or warrant the accuracy or completeness of statements appearing in these advertisements.

**NEXT DEADLINE: COB  
WEDNESDAY, SEPTEMBER 22**

**APARTMENT FOR RENT,** 1 bedroom/1 bath, North Park area. Interested? Contact Bea 452-1962

## Retirees

### Charles Abbate

Engineering Staff Specialist ..... 10 years

### Jack Barnes

Production Engineer, Sr. .... 7 years

### Allen Clark

Engineering Technician ..... 36 years

### Jack Cranston

Production Manager ..... 39 years

### Reynaldo Dorame

Logistics Support Parts Analyst ... 39 years

### Daniel Falk

Custodian ..... 18 years

### Robert Fox, Jr.

Engineering Specialist ..... 36 years

### Daniel Heald

Manager - Engineering ..... 38 years

### Olen Hyden

Buyer, Sr. .... 9 years

### Dean Kleven

Program Administrator, Sr. .... 5 years

### Calogero Lograsso

Logistics Specialist ..... 33 years

### Mitzi McCrary

Executive Secretary ..... 37 years

### Larry Newberry

Engineer, Sr. .... 15 years

### Ronald Newby

Engineering Specialist ..... 33 years

### Norman Pintchuk

Engineer Specialist ..... 8 years

### Eugene Reynolds

Facilities Specialist ..... 37 years

### Betty Sancho

Human Resources Assistant ..... 21 years

### Theodore Shamshoian

Engineering Specialist ..... 35 years

### Phyllis Stein

Transportation Reservationist ..... 4 years

### William Stillman

Audio Visual Specialist ..... 6 years

### Henry Tisdale

Engineering Specialist ..... 6 years

### Kenneth Winegarner

Supervisor - Production ..... 9 years

## Annual Rate of Return for the General Dynamics Savings and Stock Investment Plan

### RATE OF RETURN FOR THE 12 MONTHS ENDING: JULY

<u>SALARIED</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
Government Bonds	9.6%	9.8%	5.2%
Diversified Portfolio	12.1%	15.3%	9.0%
Fixed Income	9.9%	10.3%	8.9%
Special Distribution Account	N A	0.3%	4.2%
General Dynamics Stock	72.0%	77.8%	64.3%
<u>HOURLY</u>			
Government Bonds	9.3%	9.5%	5.0%
Diversified Portfolio	11.8%	14.9%	9.2%
Fixed Income	9.6%	10.1%	8.7%
Special Distribution Account	N A	0.3%	3.4%
General Dynamics Stock	72.0%	77.8%	64.3%
GD Stock Closing Price	45.000	79.000	90.250
Average Purchase Price	44.096	76.689	90.741
Stock Growth	68.2%	75.6%	14.2%
Dividends	3.5%	2.2%	2.0%
Special Distribution Proceeds	N A	N A	48.1%

General Dynamics dividends and proceeds from Special Distributions are included in the rate of return of General Dynamics stock. Rate of return on the account into which Special Distribution proceeds are deposited is the annualized monthly year-to-date average.

**Editor's Note:** The corporate employee publication, GDWorld, has been discontinued as part of the corporation's plan to empower divisions, streamline the corporate headquarters and control overhead costs. In the future, GD corporationwide news will be channeled to the divisions for proper dissemination. One example of this is the SSIP rates previously published in GDWorld. GDSS employees will now be able to find this information in the Orbiteer.

## Q&As

The *Orbiteer* offers space for employees questions concerning company and industry issues. Please forward your questions to the editor at **Mail Zone K1-7092**. We will try to get your question answered as soon as possible, and will print them as space allows. **All questions must include the employee's name, work extension, and employee number.** Confidentiality is guaranteed, but we need to verify that the questions and comments received are from employees.

## Waiting for Answers



The *Orbiteer* is printed on recyclable paper. After reading, please discard in the colored paper recycle bins.

## In The Next Issue...

- **Hammond Facility Hosts Open House**
- **CPI Connection**

## Employment Figures

### (Week Ending September 3, 1993)

Cape Canaveral AFS	532
Commercial Launch Services	37
Financial Service Center	85
GD Space Services	42
Hammond	191
Hurlingen	238
Huntsville	16
Property Management	8
San Diego	2,699
Vandenberg AFB	206
<b>TOTAL</b>	<b>4,054</b>

## Community Relations News

### St. Vincent DePaul Village Summer

**Shoe Drive**—Thanks go to the Space Systems Division employees who collected 1,002 pairs of shoes during this drive, which was held July 26-30. Computerized Cobbler sponsored the event. For those who may have missed the internal shoe drive, the Computerized Cobbler collects shoes all year long. Just call 232-SHOE for the nearest location.

**Sweater Sunday**—GDSS is supporting an event focused on collecting thousands of sweaters and sweatshirts in a single day, October 9, and making them available to people who really need them. So go through your closets, pull out those old but usable sweaters and sweatshirts, and bring them to any Vons store on October 9. This is a first-time communitywide service project designed to help needy people keep warm this winter.



The *Orbiteer*, Space Systems Division's employee newsletter, is published biweekly. Submitted articles will be printed as space permits, at the discretion of the editor. All submissions may be edited per space requirements. Send items of interest to:

### Orbiteer

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(512) 435-7835 EM OS PRETER,GR

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VAEB Reporter: Barbara Khoshdel  
(805) 754-8252 Ext. 67547 EM OS HRVAEB

# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

October 15, 1993

## Senate Rescues SSC

Space Magnetics employees in San Diego and Hammond, LA, held their breaths the morning of September 30 as the U.S. Senate voted on an amendment to cancel funding for the Superconducting Super Collider program.

But our prayers were answered, when the senators voted 57 - 42 against this amendment. This program represents only \$640 million of the whole \$22 billion energy appropriations bill. The bill for funding now goes to a conference

committee of House and Senate members for compromise due to the House's earlier vote against the funding. Then the complete Congress will vote on the appropriation.

In the mean time, our funding for the project has been extended through October 21. A compromise is expected in the conference committee soon. If the compromise does not occur prior to the October 21 extension date, another continuance of funding is anticipated from

the Congress until the final vote has been taken.

Walt Robertson, division vice president and general manager - Space Magnetics, is optimistic that the bill will be approved. "We will be watching the conference committee proceeding very closely because of the difference in the votes in the House and Senate," he said. "I believe that support for the Collider

*Continued on page 2*

## GDSS Recognized for Environmental Achievement

by Jon Duke, GDSS Environmental Resource Management

The San Diego Industrial Environmental Association (IEA) presented its 1993 Environmental Responsibility Award to GDSS at the association's annual conference in September.

This prestigious award is presented to exemplary San Diego businesses on the basis of contributions to the environmental community, regulatory compliance status and efforts to reduce wastes and emissions. We placed first in the "company with greater than 1,000 employees" category.

GDSS has been very successful in voluntarily reducing our emissions of ozone-depleting substances, air toxins,

hazardous and solid wastes and the 17 chemicals targeted by the Environmental Protection Agency and the U.S. Air Force for early elimination.

Our accomplishments include:

- Virtual elimination of chlorofluorocarbons (CFCs) from all processes
- Emissions reduction of 1,1,1-trichloroethane by 79 percent since 1990, a savings of over \$750,000

- Recycling of over 1 million pounds of paper since December 1990
- Twenty-five percent reduction in hazardous waste discharges in 1993
- Cutting of emissions of the 17 target chemicals by 57 percent

These accomplishments result from the awareness and active contributions of all Space Systems employees. May we all take pride in helping make Space Systems a leader in the environmental community. •



*Ed Squires, division vice president - Operations, and Jon Duke, engineering specialist, senior - Facilities, present our Environmental Responsibility Award to Division President Mike Wynne (photo by Mike Munson, Still Photography)*

### In This Issue

- AC-108 On Its Way
- Huntsville Runners Team Up



## Magnetics News

Continued from page 1

program is growing in the Congress, mostly due to the work of Senator J. Bennett Johnston, who is busy informing the Senate members of the importance of SSC to our nation's future. Because of his efforts, members of the House and the nation as a whole are becoming more informed of the benefits of the SSC." •

## Other Space Magnetics News:

### Current Limiter Award

The Space Magnetics group has received \$2.3 million of a \$3.4 million award to build and demonstrate a novel superconducting current limiter prototype device for use in the electrical utility industry.

Teammates on this project include American Superconductor Corporation and Southern California Edison. Terms for the two-year contract with the Department of Energy are still being negotiated.

The current limiter will be used to momentarily reduce the flow of electric current during unexpected events such as lightning strikes and short circuits. This system protects expensive electrical equipment from damage.

This current limiter award represents the first made by the DOE under the Superconductivity Partnership Initiative, a \$4.5 million program aimed at fostering the development and commercialization of high-temperature superconducting electric power equipment.

### SSC Team Receives Award

by Patty Pierson, GDSS Small Business administrator

The GDSS – SSC Procurement team recently received GDSS's award as the Small Business Team of the Quarter.

The team, located in Hammond, LA, was selected as a result of its continuous efforts to locate, develop and use small disadvantaged and woman-owned businesses (SDB WOBs).

The team committed more than \$2.4 million to these businesses during the first half of 1993 and more than \$5.6 million since the beginning of the program. Nine percent of subcontracts to date for the GDSS – SSC program have been awarded to SDB WOBs.

## CPI CONNECTION

*This timely CPI question was gathered through the Orbiteer's Question & Answers section. Members of the CPI Communications Committee and John Thacker, division vice president – Quality Assurance, provided the answer.*

### Does CPI work in our current environment?

CPI is even more important in light of the downsizing and reorganizing of the division. We have less people handling a very significant workload, so we need to look for ways to make our tasks easier and more efficient.

These improvements could include:

- 1) Deleting steps in our work processes that add little or no value to the product we manufacture or the service we perform.
- 2) Eliminating duplication of effort between departments, and
- 3) Finding less expensive materials to use.

Saving time and eliminating unnecessary costs contribute to our division's ability to be competitive, offset overruns and maintain profitability.

Employees do not need formal training or a special team to participate in continuous improvement. If you have a suggestion, discuss it with your supervisor. We need your ideas to make our jobs more manageable, and to continue to provide products that are high-quality, low-cost and on schedule. •

## Space Briefs

**From Security – Employees are reminded that they should not park in the following spaces unless authorized:** Carpool (white), Visitor (green), Physically Limited/Handicap (blue) and, Commuter (yellow). The above spaces are still being strictly reserved and violators will be ticketed, which could result in towing at the owner's expense.

**From the Convair Alumni Association – The CAA's October luncheon meeting will be held at 12:45 p.m. October 19 in the Kearny Mesa Plant cafeteria.** Barbershop music and short skits will be presented by the Madrid Manor Entertainers.

**Also from Security – Please do not transport any locks into or out of any GDSS facility.** Plant 19 is of particular concern because of the INF spot site inspection provisions. Do not place any combination locks on gates or doors at Plant 19 without prior approval of the locksmith. All lock transfers should be coordinated through Toady Hawkins, Lindbergh Field and Plant 19 locksmith, at 28648, or Dominic Biello, Kearny Mesa locksmith, at 73695.

**From Community Relations – Thank you for being a part of the 1993 San Diego Union-Tribune/KNSD Kids' News Day team.** This event was a success because of your help. Together, we raised \$717 for Children's Hospital and Health Center.

**Another Message from Security – Effective October 1, the Plant Protection officers have been removed from the Harbor Drive facility post.** Access will now be available only through a badge-activated entrance. Only those individuals with magnetically coded badges will have access to the parking facility. Questions concerning this should be directed to the supervisor of Operations – Physical Security at 26349 or 26258.

# GDSS Delivers Newest Vehicle to Cape

GDSS rolled out the newest member of the Atlas family of launch vehicles on September 24 from our San Diego production facility.

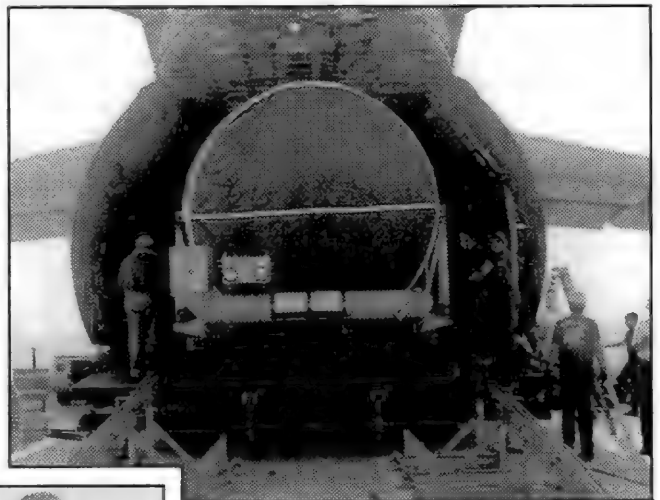
This vehicle, AC-108, is the first Atlas IIAS. AC-108 was delivered to CCAFS where it will undergo final processing in preparation for a mid-December launch from Launch Complex 36B.

AC-108 will deliver the AT&T Telstar 401 satellite to geosynchronous transfer orbit in mid-December. Telstar 401 is the first of AT&T's next-generation video and data services satellites. AT&T has purchased an additional ride on the Atlas IIAS in 1994 for another Telstar satellite.

In appreciation of the hard work of all who helped put this "bird on the road," a celebration party was held at the CRA on October 7. •



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4



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## Photo Captions:

1. The move team gets ready to load AC-108 onto the C-5 transport aircraft.
2. It may look like a tight fit, but our team knows what they are doing and get the vehicle safely loaded.
3. Employees had a chance to chat with Division President Mike Wynne at the October 7 AC-108 celebration party.
4. Ed Squires, division vice president – Operations, hosted the party and welcomed all employees who came for the free food and drinks.
5. Plant 19 Transportation team members were happy for the chance to relax at the AC-108 bash.

(photos by Mike Munson, Still Photography)

# Titan/Centaur Team Recognized

In September, several Space Systems and Martin Marietta employees were recognized by the U.S. Air Force for accomplishing critical testing in support of the Titan Centaur program.

The test, called the LO<sub>2</sub> Vent Valve Combined Environment Test, was considered by the Air Force to be a hard launch constraint. This test was schedule "critical" and required an LO<sub>2</sub> vent valve to be checked in combined launch vibration and cryogenic regions simultaneously, regions beyond those normally used for initial acceptance test or valve qualification levels.

At the time the test requirements were made, no existing GDSS test facilities met all the conditions required. Creative combining of testing equipment and procedures from a variety of sources provided the needed environment.

Over 100 personnel from GDSS, Martin Marietta, the Air Force and Aerospace Corporation attended the Titan Centaur monthly program meeting at which the employees were recognized. The GDSS employees involved in this project were: Steve Wearp of the Engineering Test Labs, Wayne Nash of Titan Centaur Test Integration, Dan Kiefer, design engineer – Fluid Systems, and Hank Thomas, chief – Titan Centaur Test Integration. •



A few GDSS employees were recognized during the September Titan/Centaur monthly program meeting for critical testing support. The GDSS employees included Wayne Nash (second from left), Steve Wearp (third from left), Dan Kiefer (fourth from left), and Hank Thomas (third from right). Division Vice President Dave Hackley (far left) also was present. (photo by Mike Munson, Still Photography)

## Drug Abuse Concerns? Call GDTIP

Don't forget about the drug tip hotline that gives employees a confidential method of reporting information on drug abuse and violations in the workplace.

Security Investigations services the hotline. Calls to GDTIP (974-3847) will be answered by an experienced investigator. Callers do not need to identify themselves.

All information gained from calls to GDTIP is evaluated and investigated or referred to the proper authority for action as needed. Callers are encouraged to give as much detailed information as possible.

Please remember, GD policy prohibits the use, possession and/or sale of illegal drugs in our facilities, including all parking lots. •

## Fire Department Offers Equipment Sale

To encourage employees to protect their families and homes from fire, the Fire department is selling fire equipment throughout the month of October. The G.S. Parsons Company is making this high-quality safety equipment available to Space Systems employees at a special discount.

Employees can order items using the order form provided at right. Send the order form with your check or money order (made payable to G.S. Parsons Co.) to the Fire department, MZ 50-5601. Orders will be delivered the week following receipt of your form and payment.

For more information, contact the Fire department at 43100 or 73123. •

### Fire Equipment Order Form

Name: \_\_\_\_\_ Employee Number: \_\_\_\_\_  
 Dept.: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Plant: \_\_\_\_\_  
 Work Location: Building: \_\_\_\_\_ Floor: \_\_\_\_\_ Column No.: \_\_\_\_\_  
 Work Shift Hours: \_\_\_\_\_

QTY	DESCRIPTION	PRICE	SUBTOTAL
_____	Lifesaver Professional Smoke Detector	@\$9.99	_____
_____	2.5 lbs ABC Dry Chemical Fire Extinguisher	@18.40	_____
_____	5 lbs ABC Dry Chemical Fire Extinguisher	@24.45	_____
_____	25-foot Escape Ladder	@64.59	_____
_____	15-foot Escape Ladder	@42.76	_____
_____	1 gallon Flammable Liquid Safety Can	@\$22.78	_____
TOTAL:			\$ _____



# Huntsville Office Runners Team Up For Runway Run

by Don Deming, Huntsville Orbiteer Reporter

Five GDSS Huntsville employees teamed up for the annual Huntsville International Runway Run held August 14. With a mix of serious and novice runners, the GDSS team placed 11th out of 25 corporate teams entering the five-kilometer race.

The three best times recorded by team participants were summed to form a team score. The GDSS team turned in a score of 69:40, based on the individual times of John Karas, Terry Abel, and Don Deming. Richard Webb and Jim Risch also ran well on the GDSS team.

The wide runway provided a particularly easy start for the 1,500 or so runners in this year's event. The race began on the runway, continued to near its end, looped around and returned on the taxiway to the finish.

Starting near sunset on that warm (85°F) and humid day, the run provided a challenging and enjoyable opportunity to participate in a community event. •



*Congratulations to these Huntsville employees who did so well in the Huntsville International Runway Run. They are: (kneeling) John Karas, Richard Webb, (standing) Jim Risch, Terry Abel and Don Deming. (a mystery photographer took the photo)*

## The Computer Labs Are Coming

Permanent computer stations are now being placed in common areas around the division to provide access for all employees to standard software and QuickMail.

These labs are being created as part of our division's current reengineering activities. As organizations move from Century Park into Kearny Mesa Building 5 and other locations, the labs will be created. Each lab will have five Macintoshes, one of which will be an SE for QuickMail use. A laser printer will also be placed in each lab area.

Information Resource Management and Facilities have identified floor space for 50 of these labs. Each secretary will continue to have a dedicated station.

"Our goal is to move computers less often and reduce support from Computer Sciences Corporation," Kris Buitenhok of IRM said. "We can now focus our financial resources on better networks and the improved efficiency and productivity of computer users."

The computer labs are scheduled to be in place by December 23, 1993. Over 15 labs will be positioned in the low bay area of Kearny Mesa building 5.

If you have any questions concerning this process, please contact Kris Buitenhok at 44407. •

## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly, be kept brief, and will be printed as space permits. Items for sale or rent cannot be listed in more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Ridesharing and lost/found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,  
Mail Zone K1-7092.**

Classified ad information appearing in the *Orbiteer* comes from many sources. The *Orbiteer* and the General Dynamics Corporation do not assume responsibility for or warrant the accuracy or completeness of statements appearing in these advertisements.

**NEXT DEADLINE: COB  
WEDNESDAY, OCTOBER 20**

**OFFICE EQUIPMENT,** IBM Selectric II Typewriter w 8 fonts & ribbon, \$350; Transcribing machine for mini tapes, \$200, both for \$500. Mike 467-9836

**FOR SALE,** Zenith 19" TV, excellent condition, just like new, \$100; Brand new AM FM car stereo, never used, \$100. Ray 549-7842

**FOR SALE,** 1981 Pontiac Grand Prix, A C, new brakes & tires, current tags, needs minor work, \$1,200 OBO. Laura, 463-0308

**FOR SALE,** 1980 Chevy Monza, 4-spdl, new tires, current tags, needs some work, \$1,000 OBO. Laura, 463-0308

**FOR SALE,** Massive and ornately carved antique oak dining room table w. 2 built-in leaves & 4 matching chairs, \$1,000. Susan 449-0035



*Personnel on the fourth floor of Kearny Mesa building 24 are already using the new IRM computer lab recently set up in the north end of the building (photo by Dan Nash, Still Photography)*

## Industry Information

**Lockheed's joint venture with Russia to launch Proton's rockets is paying off.** In September, they received their first customer – Loral Corporation.

The agreement plans for the launch of five Loral-manufactured satellites. The first launch is scheduled for the last quarter of 1995, with the others between 1996 and 1998. •

**The National Space Society plans to hold a pro-space rally on November 6 at 11 a.m. at the Federal Building in Westwood, Los Angeles.**

The rally, "Space: the Dream Is Still Alive," supports California's aerospace industries and the exploration of space. Call (310) 364-2290 for more information. •

**An Indian rocket, the \$144 million Polar Satellite Launch Vehicle, failed to place a satellite in orbit in September** because of an ignition problem, according to the Indian Space Research Organization.

This mission would have positioned India to compete in the international space industry. •

## Questions & Answers

The *Orbiteer* offers space for employees' questions concerning company and industry issues. Please forward your questions to the editor at Mail Zone K1-7092. We will try to get your questions answered as soon as possible, and will print them as space allows. All questions must include the employee's name and work extension. Confidentiality is guaranteed, but we need to verify that the questions and comments received are from employees.

**Q** In the lead article in the June 11 *Orbiteer*, the issue was raised relative to getting a fair return on the \$1 billion GD has invested in the launch business. Isn't most of that "sunk cost," and isn't the real issue the return on the current market value of the investment plus future investments in the business?

(editor's note: this article mentioned was based on Mike Wynne's testimony on competitiveness in the U.S. commercial launch industry.)

**A** Whenever you invest capital, it is with an expectation that it will be returned with interest. This is practical finance. Once you are in business, staying in the business is an issue related to return from ongoing operations over a defined future, plus any other capital requirements for business maintenance, which "drags" down return. But you have to overlay market uncertainties on the future. Ours are twofold: 1) vehicle reliability, which we all believe has been restored, and 2) market reliability, to steady our production volume and provide revenue for return. U.S. government policy and the entry of the nonmarket nations into our market impacts market reliability. We are all working to gain the best of both of these future uncertainties and thus, provide value as a business over the long term.

(Mr. Wynne)

**Q** Are there any plans for Space Systems Division to have an open house? I believe it would be interesting for our kids and spouses to see what we build, where we sit, etc. Building 5 would be a great area for all to see.

**A** We will be thinking about having an open house sometime in 1994, but there is nothing immediately planned. I very much appreciate the positive impact the open houses have on each of us and our families, and I'm sure we will need lots of support to make one a success when we do have one. (Mr. Wynne)

**ORBITER**  
GENERAL DYNAMICS SPACE SYSTEMS DIVISION

The *Orbiteer*, Space Systems Division's employee newsletter, is published biweekly. Submitted articles will be printed as space permits, at the discretion of the editor. All submittals may be edited per space requirements. Send items of interest to:

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**In The Next Issue...**

• **Space Industry Spinoffs**

### Employment Figures

(Week Ending October 1, 1993)

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Harlingen .....	233
Huntsville .....	24
Property Management .....	8
San Diego .....	2,514
Vandenberg AFB .....	205
<b>TOTAL .....</b>	<b>3,865</b>

# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

November 12, 1993

## Hughes Awards Us a Launch!

**A**fter a year and a half of no new launch contracts, GDSS and GDCLS have proven to the industry we are back in business for the long run.

On October 29, Hughes Communications International Inc. announced its plan to launch a Japan Satellite Systems Inc. communications satellite (JCSAT 3)

aboard an Atlas IIS. The launch is scheduled for the third quarter of 1995 from Cape Canaveral Air Force Station, FL.

"We are extremely pleased that Hughes has selected Atlas launch services for this important program," Mike Wash, CLS president, said.

*Continued on page 5*

## In This Issue

- **Space Industry Spinoffs**
- **CPI Connection**
- **Focus on Security**
- **Protect Yourself from Carjackings**
- **Service Anniversaries**

## Let Us Gather Food for the Harvest Drive

**A** group of San Diego GDSS employees is starting what they hope will be a harvest of good food for their displaced fellow employees. Members of the Copier Services group along with the employee Con-Trib Club have organized a program for gathering food items that will be given to division employees who have received their reduction-in-force notification and need assistance. These identified employees will get the food in time for the Thanksgiving holidays.

There are two ways you can participate. If you know of a displaced employee who could benefit from this food drive, fill out one of the Food Harvest 1993 forms located around the GDSS - San Diego facility, or call Copier Services at 75882 for additional forms. These forms should be turned in as soon as possible to Kathy Kendrick at Mail Zone K1-7143.

The other way you can participate is by donating food for the drive. Food collection bins are located at Kearny Mesa in the Building 24 lobby, Building 2 lobby and at Guard Gate 1. The collection bin at Plant 19 is located at the guard gate at that facility.

If you are able to donate food items, please do so according to the following categories, which are grouped according to the first letter in your last name:

*Continued on page 5*





# SPACE INDUSTRY SPINOFFS

As Congress decides the future of the U.S. space program, several industries are using products developed for space to better our lives. Many space products have crossed over to non-space applications and are called space spinoffs. NASA encourages these applications. In fact, each of NASA's nine major field offices has a group working to find ways to apply newly invented space-related technology for non-space uses.

Once a company expresses interest in a specific technology, NASA gives the technology away. The company often receives exclusive rights for a year in which it spends its own money to further develop the technology.

According to Bill Sheehan, chief of the technology transfer office at Kennedy Space Center, interest in space spinoffs has never been greater than this year. These spinoffs are indirect benefits of the space program.

"There's been discussion of whether we should continue the space program and people start looking at the pros and cons," Sheehan said. "One of the unrecognized pros is the way we constantly push the state of the art." (*Florida Today*, Sept. 7, 1993) •

## Did you know these were space spinoffs?

### WD-40

One of the most recognizable spinoffs that also has close ties to General Dynamics is WD-40, a product originally developed to prevent rust and corrosion on the outer layer of the Atlas launch vehicle.

"The father of WD-40 is a chemist named Norm Larsen, who was playing around with different formulations of petrochemicals back in the early '50s, trying to come up with a water-displacement formula," Jerry Schleif, WD-40 CEO, said. "It took him 40 tries. That's how we got the name WD-40."

WD-40 has been used as a lubricant penetrant, rust preventative, moisture displacer and cleaner. (*San Diego Business Journal*, Sept. 13, 1993) •

### Thermometers

If you've gone to the doctor lately, you may have seen the latest in medical technology that actually is a space spinoff — aural thermometers. These thermometers are placed in the ear and measure the energy emitted from the eardrum into the ear canal.

The technology used in these thermometers was originally used as a way for scientists to measure the tempera-

tures of distant stars by finding the amount of heat-producing infrared radiation given off by the stars. •

### Fire Suits

Firefighters around the country are finding new ways to battle flames these days. One of the newest technologies is the development of Beta Glass, a fiber used in astronaut spacesuits.

Material made of this fiber is durable, light and flexible, enabling the firefighters to move directly into fires. The suits feature built-in vapor barriers that allow the body to breathe while providing protection from the heat. •

## CPI CONNECTION

### ABMS Project Design in Full Swing

The Operations Finance group is currently working on a prototype Accountability Based Management System (ABMS) project that utilizes Continuous Process Improvement. Currently, cross-functional teams, including members from each business site (e.g., CCAFS, Plant 19, Kearny Mesa Building 5), are reviewing specific financial information to be included in the project.

This project involves a user-friendly, PC-based menu system (client-server network) for reporting existing site financial data such as direct and indirect-equivalent employee figures, non-labor dollars, and direct hours, dollars and employees by major program.

ABMS includes data based on budgets, actuals and forecasts from

existing systems such as SIMS and the Indirect Budget System. Prototype enhancements currently in work include earned value, cumulative-to-date and out-year projection information, along with a package of charts to be used for monthly management site reviews.

The ABMS project is being designed to coincide with the division's approach to Accountability Based Accounting (realignment of burden centers and departments to represent site-specific financial reporting), and to reduce the effort needed to produce financial data manually. Additionally, ABMS will serve as a centralized data point, eliminating division problems associated with different financial data coming in from several sources and the different groundrules used in presenting program cost positions.

During the first half of 1994, the ABMS project team will be working with Computer Sciences Corporation to transform the prototype into a productionized reporting system and to identify the final system specification, which will include increased responsiveness in generating financial data and the use of off-the-shelf software to reduce our reliance on expensive main-frame systems.

The ABMS project represents Continuous Process Improvement by providing a real solution to current division problems. Once incorporated, ABMS will be used by site management to effectively manage their business bases utilizing a single-source information center for distribution of a "single set of financial numbers." As the ABMS project evolves, Finance will be looking for new opportunities to enhance the system to better support the needs of the division. •

# Focus on Security



*Members of the Security organization are always available to answer your security questions. Their office is located in Kearny Mesa Building 24, 1st floor. (photo by Dan Nash, Still Photography)*

As a high-technology government contractor, GDSS engages in both highly sensitive and classified efforts. To protect information important to national security and our division's competitive edge, we are required by our contracts with the Department of Defense to abide by the terms of the Defense Industrial Security Program (DISP).

To monitor compliance with the DISP, the Defense Investigative Service (DIS) inspects all cleared facilities on a regular basis. Unsatisfactory inspection ratings can lead to the loss of contracts, suspension of work, or, in the worst case, shutdown of facilities.

Fortunately, GDSS has an excellent inspection record! During the last inspection of our San Diego facility, we received a superior rating, which is the highest possible. We can be and are inspected on all facets of our Security program including:

- Security education
- Visitor control
- Computer security
- Document control
- Classification management
- Physical security.

The GDSS Security team's goal is to win the prestigious James S. Cogswell Award for sustained excellence in Industrial Security. This national award is given to those few contractor facilities that consistently maintain outstanding Security programs. It's very difficult for a large, complex facility such as ours to achieve this award but the Security staff strives to be *The Best in Space!*

## The Security Staff

The director of Security for GDSS, Ron Davis, has extensive professional Security experience. In addition to his 11 years with GD, he was a FBI special agent for 12 years. Just a few years ago, he provided direct security and consulting support to the America's Cup Races held in San Diego. Diana Campion, executive secretary, has eight years of GD security experience and provides support to Ron and the rest of the staff.

Archie Yates, a 15-year security veteran, serves as the manager of the Industrial Security department. Archie is active in the local chapter of the Industrial Security Awareness Council and is also the program manager for the Intermediate Nuclear Forces contract.

Tim Salazar and his staff of Delgie Jones, Sandra Navarro and Sandra Reid (along with Chuck Shelton and Carolyn Margoni at Cape Canaveral Air Force Station, FL) provide security for special programs within the division. Dave Walters, manager of Physical Security, and his staff of Ben Tague, Chuck Dombrow, Ray Casarrubias, Linda Jarvis, and the Plant Protection officers, supervisors and locksmiths, provide physical security and support services for the division and 11 external customers.

Mike Flannigan and Hiroo Shiba provide their expertise for Atlas Centaur and Titan Centaur Mission Integration security. Jack Swatling, the division's investigator, supports the investigative needs for the GDSS Ethics Program and division security violations. The Security personnel at offsite locations also play a critical role in maintaining our excellent security posture.

Four Security administrators, managed by Archie Yates, handle much of the work required under the terms of the DISP. These administrators strive to maintain a high level of Security awareness among all employees throughout the division by focusing on Security education.

The division Security administrators are:

- Jackie Barrington – Master Document Control Communications Security
- Todd Dolezal – Stand-alone Computer Systems Controlled Areas
- Edye Oliver – Classification Management Visitor Control
- Nancy Sexton – Security Education Personnel Security

*Continued on page 4*

**The Defense Investigative Service will conduct a division security inspection November 16 – 18.**

## Focus on Security

Continued from page 3

The administrators are very active in higher education. Jackie Barrington completes her degree this year in Administration of Justice and has been in the security field for 15 years. Todd Dolezal, the internship coordinator, recently taught a class in Physical Security at California State University San Marcos. Edye Oliver is also pursuing a degree in Administration of Justice and has an interest in investigations. Nancy Sexton, former security manager at another local company and a member of the State Bar of California, actively participates in the San Diego Volunteer Lawyer Program.

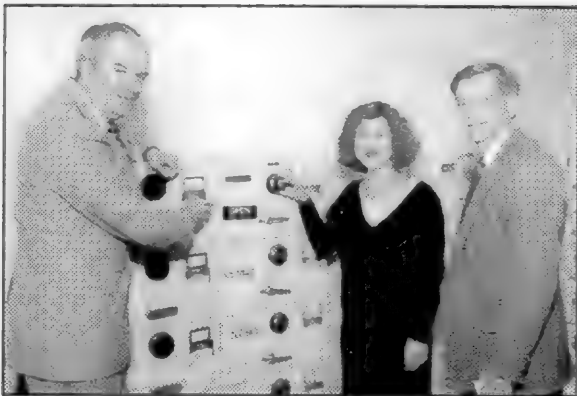
Additional Security personnel include Jan Thompson in personnel security; Joe Diaz, Madeline Voelker and Charity Woods, who staff Master Document Control; and Division Receptionist Charlotte Whorton, who also handles incoming classified visitor control.

The Security staff also manages a very successful Security Intern Program at GDSS. This program, held in conjunction with Western Illinois University, has graduated and placed 14 Security interns since 1984.

In addition to a first-rate Security staff, total employee participation plays a key part in the success of the GDSS Security program. The GDSS Security Representative Program, administered by Nancy Sexton, also is critical in keeping division security awareness high. All employees – classified document custodians, uncleared employees who provide escort to visitors, cleared employees who ask Security the right questions *before* working on classified material – are essential to the success of our program. Management support and participation are important criteria for the James S. Cogswell Award for Industrial Security that was mentioned earlier.

## Security Notes

As a reminder, one of the most frequent division security violations has been secure containers left open because the combination dial was not spun adequately. Please be conscious of this and spin the dial at least three complete revolutions in one direction.



Nancy Sexton discusses proper locking procedures with Mike Wynne, division president, and Ron Davis. (photo by Mike Munson Still Photography)

For the past several years, DIS has been conducting enhanced inspections that include numerous interviews with employees. Make sure you are adequately prepared to represent the division if a DIS inspector selects you for an interview. Please do not hesitate to contact the Security staff if you have questions prior to the inspection. They can be reached at 44604. •

## Carjacking Protection

by Nancy Sexton, Industrial Security

Only two years ago, the greatest fear of most drivers was to have their unoccupied car stolen. Today that fear has escalated to having the vehicle taken at gunpoint, with the driver behind the steering wheel. The number of carjackings has been rising steadily and Southern California has one of the highest rates nationwide. To minimize your risk of becoming a carjacking victim:

- Be aware of your surroundings, especially at night and in isolated areas.
- If someone suspicious approaches your car, quickly but carefully drive away.
- Drive cautiously and allow at least one car length between your car and the car ahead of you. Avoid being blocked into the curb lane.
- If you notice someone lurking near your unoccupied car, keep walking or go to a safe place until the person leaves.
- If you're being followed, don't drive home or try to leave your car. Go to the nearest police or fire station, or drive to an open business with pedestrian or car traffic.
- Park in areas that will be well lit when you return. Always check the rear seat and floorboard before getting into your car.
- If you have car trouble, raise your hood and stay inside with the windows and doors locked. If a stranger stops, lower the windows just enough for you to be heard and ask the person to report your problem and location to the police.
- If you are involved in a bumping accident, a glance in the rear view mirror will let you know how many people are in the other vehicle. Quickly decide if you will get out of your car or drive to the next service station to inspect the damage. If the accident is legitimate, the other driver will probably follow you.

If you become a carjacking victim, give the person your car and don't ask questions! Some police advise you to not look the carjacker in the eye – some apparently have viewed this to be a challenge and responded accordingly. •



# Service Anniversaries

## September 1993

### 40 Years

James Sanders

### 35 Years

Wayne Crow

### 30 Years

James Nugent

### 25 Years

Lawrence Rankin

### 15 Years

Charles Abel  
David Clausen  
Marilyn Dukes  
James Elliott  
Charles Johnes  
James Stone, III  
Victor Valdez  
Edward Washer

### 10 Years

Stephen Arnett  
Stephen Babb  
Eric Brunner  
Scott Buchner  
Steven Cunningham  
Arthur Cutler  
Thomas DeMerritt  
Gaspar Desiongeo  
Britt Edmondson  
Ralph Ellison, Jr.  
John Fuhring  
John Gould  
Cynthia Green  
Samuel Jones  
Diana Jordan  
Phyllis Low  
Cena Martin  
Peter Noyes  
Jeffery Reddekopp  
Thomas Shemanski  
Bruce Shoemaker  
James Talbott  
Michael Washington  
Windell Wood  
Masfield Young

### 5 Years

Alfred Acuna  
Manuel Balderas  
Anthony Barnini

### 5 Years Continued

Vincent Behnke  
Craig Brasher  
Stephanie Cain  
Apolinar Cantu, Jr.  
Timothy Charlsen  
Daniel Decosta  
Carole Dolby  
Thang Dong  
Joseph Femiano  
Anne-Renee Foiles  
Maria Fustero  
Eliseo Garcia  
Thomas Gaul  
Donald Graff  
Phillip Hann  
William Harmon  
Ronald Headding  
Richard Herrera  
Larry Himes  
Douglas Holladay  
Edward Johnson  
Michael Jones  
Sangbae Kim  
Steven Klinko  
Bernard Kutter  
Karen Lundeen  
Patricia Lynn  
Sergio Martinez  
Jose Mesa  
Margaret Miller  
Roy Miller  
Antonio Najera  
Timothy O'Brien  
Robert Painter  
Dam Pham  
Thanh Phan  
Clifford Prince, Jr.  
Thomas Pruett  
James Purchiaroni  
Joel Serna, Jr.  
Lerre Solsvig  
Mitsuyuki Soto  
Kevin Stafford  
Peter Stoll  
Thai Tran  
Lauren Wilkin  
Eddie Wingler  
Michael Woodworth  
Kenneth Zemanek

## Launch Award

*Continued from page 1*

"This is the seventh Atlas IIAS ordered, which brings our total launch commitment backlog to 30."

JCSAT 3 is a Hughes HS601 satellite design, providing voice, data and television signals to Japan, with multiple-beam coverage extending to India, south to Australia and New Zealand and east to Hawaii.

Our first Atlas IIAS is presently proceeding through checkout and processing at Cape Canaveral in preparation for launch of AT&T's Telstar 401 satellite next month. •

## Food Harvest

*Continued from page 1*

A-G	Stuffing Canned Vegetables Butter/Margarine Instant Jell-O/Pudding
H-N	Instant Potatoes Cranberry Sauce Onions Rolls
O-T	Instant Rice Canned Fruit Eggs Crackers
U-Z	Macaroni Condensed Soups Olives Cake Mix

The four items in each of the above groups total under \$5.

If you would like to participate in this great program designed to help our own, please place your food in the designated bins between November 15 and 22. You can also donate Vons Gift Certificates (send to Kathy Kendrick). These will be used to purchase turkeys and any additional food. All food will be delivered to families on November 23, two days before Thanksgiving.

For more information on Food Harvest '93, please call Copier Services at 75882. •

# Annual Rate of Return for the General Dynamics Savings and Stock Investment Plan

## RATE OF RETURN FOR THE 12 MONTHS ENDING: SEPTEMBER (revised 10/29/93)

<u>SALARIED</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
Government Bonds	10.9%	9.0%	4.7%
Diversified Portfolio	31.6%	13.5%	14.4%
Fixed Income	9.8%	10.2%	8.7%
Special Distribution Account	N/A	5.1%	3.8%
General Dynamics Stock	102.4%	87.2%	79.9%
<u>HOURLY</u>			
Government Bonds	10.6%	8.8%	4.4%
Diversified Portfolio	31.5%	13.5%	14.2%
Fixed Income	9.5%	10.0%	8.5%
Special Distribution Account	N/A	3.9%	3.1%
General Dynamics Stock	101.9%	86.9%	79.3%
GD Stock Closing Price	46.375	85.125	92.125
Average Purchase Price	46.184	83.429	95.467

All rates of return are net of plan expenses. The Rate of Return of General Dynamics Stock represents a total return, and assumes that all dividends and Special Distributions were immediately reinvested in GD shares. The Rate of Return on the account into which Special Distribution proceeds are deposited is the annualized monthly year-to-date average.

## In The Next Issue...

- **Maternity Fraternity Celebrates Anniversary**
- **Mike Wash's First-Hand Experiences in Japan**
- **Launch Updates**
- **New Service Support Group Formed**

## Employment Figures

(Week Ending October 29, 1993)

Cape Canaveral AFS .....	549
Commercial Launch Services .....	35
Financial Services Center .....	80
GD Space Services .....	42
Hammond .....	183
Harlingen .....	233
Huntsville .....	24
Property Management .....	8
San Diego .....	2,482
Vandenberg AFB .....	205
<b>TOTAL .....</b>	<b>3,840</b>

## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly, be kept brief, and will be printed as space permits. Items for sale or rent cannot be listed in more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad. Exceptions: Ridesharing and lost/found item information (we will print work extensions with these ads).

**Send ads to: Orbiteer Editor,  
Mail Zone K4-5502.**

Classified ad information appearing in the *Orbiteer* comes from many sources. The *Orbiteer* and the General Dynamics Corporation do not assume responsibility for or warrant the accuracy or completeness of statements appearing in these advertisements.

**NEXT DEADLINE: COB  
WEDNESDAY, NOVEMBER 17**

**2-BDRM CONDO FOR RENT,** Rancho San Diego, incl. washer dryer, microwave, dishwasher, etc., \$725 mo. Ray 670-0787



The *Orbiteer* is printed on recyclable paper. After reading, please discard in the colored paper recycle bins.

**ORBITEEER**  
GENERAL DYNAMICS SPACE SYSTEMS DIVISION

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# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

October 29, 1993

## The Latest on Titan/Centaur

Martin Marietta, the prime contractor for the Titan IV program, is under U.S. Air Force contract to build and launch 41 Titan IV vehicles, including 15 with the Titan/Centaur high-energy upper stage. As a Martin Marietta subcontractor since March 1985, we at GDSS are contracted to develop, produce and launch the Titan/Centaur vehicles.

The Titan/Centaur is a wide-body version of the Centaur used with the Atlas booster and has two to three times the payload capability when combined with the Titan IV booster. The 20-story Titan IV/Centaur can deliver a 10,000-pound spacecraft to geosynchronous orbit. This performance is unmatched by any of America's launch vehicle fleet.

### Launch Processing Status:

**T**he initial launch of Titan/Centaur will occur soon, according to Dave Hackley, division vice president and program director. "We are working to make this first launch a reality," he said.

Three Titan/Centaur vehicles currently reside at Cape Canaveral Air Force Station, FL. awaiting launch. TC-10 and TC-12 are atop Titan IV boosters on Launch Pads 41 and 40. TC-11 is in the preparation area.

On September 15, TC-12 successfully completed a terminal countdown demonstration (TCD) at CCAFS Launch

Complex 40. This TCD not only validated the refurbished complex and its interfaces with the launch vehicle, but it also completed the activation of the first new launch complex for Centaurs in more than 19 years.

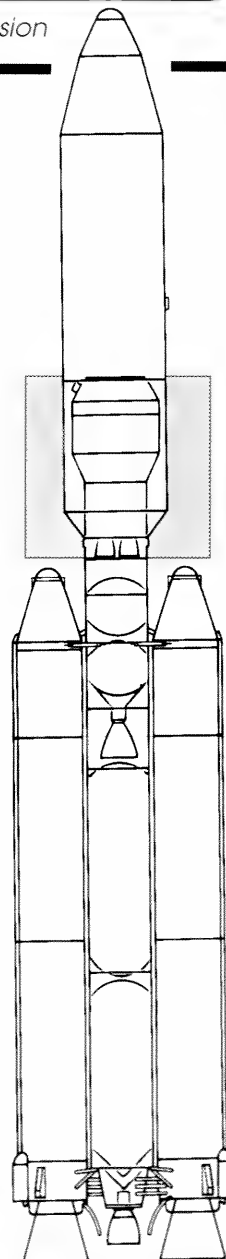
In the meantime, Martin Marietta works diligently to solve a problem encountered in August, when a Titan IV launched out of Vandenberg Air Force Base, CA, failed.

"They've identified the cause as a solid rocket motor problem," Dave Hackley said. "One of the solids developed a case burn-through, causing side

thrust in the vehicle. This resulted in an automatic destruct sequence."

In light of the failure review's findings, all existing rocket segments are being checked, he noted. The solid motor segments on the booster at Complex 40 on the south side of the vehicle stack have been removed and the questionable segments were scheduled to be replaced by the time this

Continued on  
page 2



## House Votes No, SSC Cancelled

**A**s this *Orbiter* went to press, U.S. House and Senate conferees had reached an agreement to end the Superconducting Super Collider and earmark \$640 million for program termination.

Walt Robertson, Space Magnetics general manager, spoke to employees in Hammond, LA, on October 22 and in San Diego, CA, on October 25 and said, "It's a sad day for all of us and tough to think about all our good work coming to an end. However, I believe we've all learned something of value from this important project and are better off for the experience. I'd like to thank everyone for their hard work and dedication throughout all of the challenges we've faced."

Robertson said that we will await instructions from our customer on shutting down the program in an orderly manner. Further updates will be carried in future issues of the *Orbiter*. •

## In This Issue

- **Reengineering Series**  
**Continues with an**  
**Operations Perspective**



## Titan/Centaur Program

Continued from page 1

article went to print. Following their replacement, launch processing will continue.

The booster on Complex 41 is being reviewed to decide if replacements are necessary and, if so, how they will be done. The U.S. Air Force and Martin Marietta are actively involved in the process.

### **Program Restructure II:**

A reprioritization of payloads and funding has moved production requirements for a portion of the 15 Titan Centaur vehicles into the late 1990s. GDSS's current contract with Martin Marietta expires October 1995. GDSS is working a proposal called Restructure II to extend the contract out to 1999, according to Bob DeCort, project manager. Next spring a comparable extension of launch activities will be proposed.

### **Centaur Processing Facility:**

The first phase of construction for the Centaur Processing Facility (CPF) is under way. GDSS expects authority from Martin Marietta in mid-November to proceed with the aerospace ground equipment for the facility. Personnel will begin moving into the facility's office space in July 1994. Initially the facility will be used for Titan Centaur.

"We are receiving strong congressional and Air Force support for this facility as a way to make launch systems more operable," Bob DeCort said recently.

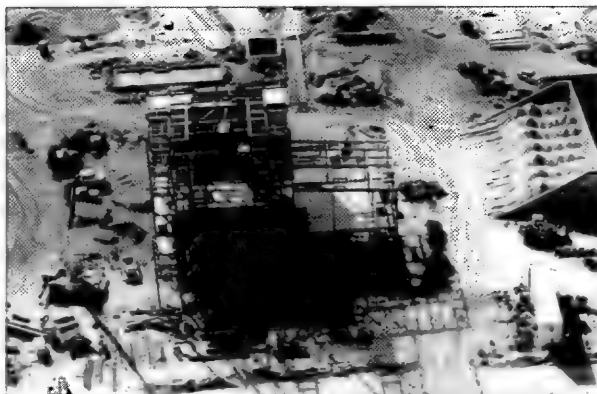
GD Space Services is an integral part of the team putting together this program and the facility, which has gone from concept to construction during the past four years.

### **Mission Integration:**

Under separate contract to MMC, GDSS is currently integrating missions for 13 of the 15 vehicles under contract. According to Mission Integration Program Director Mike Felix, this integration contract, called Unified Payload Integration (UPI), is a cost reimbursement contract valued at \$158 million and extends to September 1997.

Mission Integration focuses on the needs and requirements of the spacecraft, performs analyses and tests, and designs special equipment to ensure total compatibility between the spacecraft and the Centaur from launch through orbital insertion.

*This aerial photo shows the progress in the construction of the CPF as of August 30. (photo courtesy of the U.S. Air Force, 45th Space Wing)*



## Recycling News



Thanks to GDSS employee efforts, we have recycled more than 1 million pounds of paper, which would have filled 1,653 cubic yards of landfill space. In comparison, the Kearny Mesa Building 24 Conference Center Max room is about 1,400 cubic yards. That's a lot of paper! This paper recycling has also provided other savings:

- 5,211,374 kilowatt hours of power (enough energy to supply almost 1,000 San Diego homes for a year)
- 341,964 gallons of oil
- 5,762,032 gallons of fresh water

Our recycling program currently includes asphalt, Tyvek clean room garments, fluorescent light tubes, polystyrene, toner cartridges and various grades of paper (including the *Orbiteer*, which can be put in the colored paper recycle bins). •

## Space Briefs

**From Health Services – GDSS's annual blood drive and health fair will be held November 8 and 9 at Kearny Mesa.** Come by the patio area between Buildings 25 and 4 from 8 a.m. – 1 p.m. on Monday and 10 a.m. – 2 p.m. Tuesday. An on-site blood bank will be provided as will many informative displays. For more information contact Joan Locke of Health Services at 386-46 or Elizabeth and Brad of the CRA at 39921.

**From Community Relations – The Junior League of San Diego will be holding its rummage sale November 5 and 6 at the Del Mar Fairgrounds.** The League is collecting clean, reusable items for the two-day event. The money raised goes to sponsor many of the organization's community projects such as the Women and Children's AIDS Network and the St. Vincent de Paul Children's Enrichment Program. The sale is open to the public. If you are interested in donating items, please contact Lori Colt at 44173.

## Editor's Note

### **The *Orbiteer* moves again!**

As part of the division's reengineering efforts, I'm joining the Public Affairs group, located in Kearny Mesa Building 24, fourth floor.  
**New Mail Zone: K4- 5502,**  
**Same phone: 41406**

.....  
**Don't forget: Daylight Savings Time ends October 31.**

Remember to turn your clock back one hour.

.....  
Look for the  
**September Service Anniversaries**  
listing in the next *Orbiteer*. I ran out of space in this issue!

# Reengineering our Processes

## *An Operations Perspective*

**M**ost companies these days provide a service or product to a specific customer.

It's straight and to the point. But many companies in a defined market develop or build their products in different ways.

GDSS is no different in this from our competitors. We each have a launch vehicle to produce and sell, but the ways we go about building this vehicle may be different. Our division's reengineering analyzes the way we are building our products and restructures the processes more effectively and efficiently. As stated by Michael Hammer and James Champy in their book, *Reengineering the Corporation*, "Processes, not organizations, are the object of reengineering."

The realignment of processes is happening in our Operations organization, which is responsible for the "build and launch" processes, under the leadership of Division Vice President Ed Squires.

We interviewed Ed Squires to find out his perspective on how the reengineering of processes will affect the Operations department.

**Orbiteer:** You lead two of the defined key processes – building and launching the products. How do you see the reengineering affecting the production process, and what kind of organizational restructuring do you see coming that will support these key processes?

**Ed Squires:** It's already happening, as you know. I guess I really see the reengineering as a watershed event that most American industries are going through. I think historically we've been a pretty task-oriented organization and I see the reengineering focusing us on what the key processes are and how to accomplish them in the most competitive manner. These key processes are really unique by site – by manufacturing site and by launch site. I see us going through a transition period the rest of 1993. It will be a

difficult period, but we will go into 1994 more focused on the value-added processes that make us competitive in the international marketplace. That's really the issue. Reengineering is a tool to help us get to our goal of being the Best In Space, and to do that we need to be more competitive. The key processes that we are defining and refining in this restructuring will help us do that.

**Orbiteer:** So basically what you are saying is in Operations the reengineering will focus on having the processes unique by site, with everything being more site managed.

*Continued on page 4*

**"... the key event from the reengineering point of view is to make sure we define the focus and only do the value-added tasks, as opposed to all of the tasks we've historically done."**

**– Ed Squires, division vice president – Operations**

*(photo by Mike Munson, Still Photography)*



# Reengineering Processes

Continued from Page 3

**Ed Squires:** Right. If you think about it, Harlingen is building all of the expendables. So they have a number of key processes: drilling holes, installing fasteners, etc., and they need to be the best with these processes. This is an ongoing effort. At Plant 19 it's building the tanks – building the best tank possible at the most competitive cost and taking the hours and material costs out of manufacturing the tanks. At Kearny Mesa, it's really the final assembly of the product and test and checkout. And down at the Cape or at Vandenberg, of course, it's the launch process, which is a natural extension of building the product.

From procuring the parts in the most efficient, effective way through launching the vehicle, it's a pretty straightforward, accountable, responsible process. Everything that doesn't support these key processes should be examined so that the majority of our resources are focused on the value added to the products that our customers want.

**Orbiter:** How are the offsites going to be integrated into this reengineering “build and launch” organization?

**Ed Squires:** We really began going to the site concept when (Division President) Mike Wynne arrived, so I think the offsites are already integrated. We've been to Harlingen, I think, roughly 50 times for program reviews, so there's been a very straightforward structure developed. We've agreed on the standard site metrics that we use to

help us avoid unpleasant surprises in the quality, schedule, cost and business areas. I see this as a continuation of the process we've already started, recognizing that the key event from the reengineering point of view is to make sure we define the focus and only do the value-added tasks, as opposed to all the tasks we've historically done.

**Orbiter:** Specifically, how many people are going to be in your new organization and how do you plan to lead so many people?

**Ed Squires:** That's a good question. Roughly it's 1,800 people. There are some groups leaving and some coming in. The Facilities organization and Master Scheduling will now be part of the new “sustaining” organization reporting to (Chief Financial Officer and Division Vice President – Administration) Rich Corbin. On the other hand, John Thacker (division vice president – Quality Assurance) will be providing Operations support to the build and launch organization as will the Procurement organization, led by Dave Parsons, Procurement director. All of these are a natural collection of build and launch functions.

In terms of how you manage 1,800 people, I think the real key is having the right individuals at each of the sites. At the Cape, Vandenberg, or Harlingen, or even down at Plant 19 or out at Kearny Mesa 5, I probably can't make as good a decision here as the people who are physically there. I spend time working with my team and

communicating with them so we better understand our focus and where we are going. As previously stated, we have also established metrics so that we get early warning of problems that are developing in the quality, cost, schedule or business areas, to name a few.

**Orbiter:** What are the defined goals for the production organization in relation to this restructuring?

**Ed Squires:** We've been working to make sure we are in agreement as to what the goal really is and that we have identified all of the key processes by site and core group. We fundamentally agree that our objective is to dramatically improve all of our key build, launch and business processes. What we have to do now is break these major key processes down and analyze all of their subprocesses so that we can reengineer them into a more efficient, effective overall process. This is the output of asking “Why do we do what we do and how do we do it better?”

**Orbiter:** Are there cost issues involved? If so, could you explain what they are?

**Ed Squires:** Cost is really the bottom line measure of how we are doing in conjunction with delivering a reliable product to our customers. The cost issue is “Can we build 62 rockets for the dollars we've committed to build them for?” Of course we've received a lot of attention as pointed out in the first *Orbiter* article with Rich Corbin (editor's note: see October 1 issue). One of the things we've done to ensure cost gets the proper place in the Operations organization is to incorporate a site controller organization at each site. Pem Smith leads that group and he reports to me and to Rich Corbin to ensure that we're systematically and objectively looking at our costs and related business issues.

---

**“I see us going through a transition period the rest of 1993. It will be a difficult period, but we will go into 1994 more focused on the value-added processes that make us competitive in the international marketplace.”**

**– Ed Squires**

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Continued on page 5



# Reengineering

Continued from Page 4

**Orbiteer:** Can you define one reengineering process in particular that applies to your organization and reflects a cost savings?

**Ed Squires:** The project that comes to mind is one where we have a cooperative relationship with SDG&E. They actually put a person in our plant to help us reduce our utilities cost. Year to date, we've saved \$400,000 for the division. The reason this program works is because our Facilities people and SDG&E's people looked at what we and others are doing in all the buildings in Kearny Mesa and they reengineered the facilities process for those buildings. In doing that, they eliminated the need for several miscellaneous tasks.

**Orbiteer:** From your perspective, how will this reengineering affect our future and the way we do business?

**Ed Squires:** I think it will determine whether we are in business or not in the long term. It's really simple. If we aren't successful with the reengineering effort then we won't be successful as an ongoing business. That's how critical I think it is. It's a very difficult process. The transition is hard on the communications channels – everything's changed. Things are changing so rapidly that people don't have the base that they are used to falling back on.

I think the reengineering is the major challenge for the remainder of 1993 along with successfully launching AC-106, AC-108 and Titan/Centaur. I have a lot of confidence in the Operations organization and the rest of the division to accomplish all of these challenges because we are the major stakeholders in that our jobs depend on doing it right! That should give us a lot of motivation! •

## Retirees

### Clarence D. Amos

Launch Service Technician - Sr. .23 years

### Ronald L. Bales

Engineering Specialist - Sr. ....21 years

### Gardner R. Beckner

Tooling Machinist .....34 years

### Marilyn Bosworth

Staff Secretary .....28 years

### Charles Brantley

Engineering Chief .....32 years

### Gerald H. Broad

Engineering Specialist - Sr. ....32 years

### Jerry V. Brown

Program Director .....11 years

### Thomas R. Brown

Division Vice President .....6 years

### Jan Burkhardt, Jr.

Engineering Specialist - Sr. ....35 years

### John R. Duncan, Jr.

Patent Counsel .....24 years

### Connie M. Franklin

Engineering Release  
Data Records .....36 years

### John Gagliani

Engineering Staff Specialist .....11 years

### Jeffrey O. Grady

Project Engineering Specialist .....11 years

### George Grande

Engineering Technician .....44 years

### Harlo Hunter

Engineering Specialist - Sr. ....39 years

### Charles Hyde

Engineering Staff Specialist .....35 years

### Francis P. Konicki

Engineer Sr. ....7 years

### David Lawrance

Group Engineer .....36 years

### Harold Lee

Program Manager .....41 years

### George Leith

Missile Checkout Electrician .....33 years

### Lawrence Lookenbill

Lieutenant – Plant Protection .....6 years

### William Mc Pike

Engineering Manager .....37 years

### Robert J. Moberly

Program Manager .....37 years

### James R. Myers

Group Leader .....39 years

### Gerald O'Barr

Engineering Specialist .....29 years

### Gerald H. Owen

Program Administration Chief .....35 years

### George E. Philyaw

Program Manager .....10 years

### Jack C. Randall

Engineering Manager .....35 years

### Paul H. Sager, Jr.

Engineering Specialist - Sr. ....5 years

### Frank Schneider, Jr.

Engineering Specialist - Sr. ....21 years

### Marvin G. Schoch

Research Test Lab .....33 years

### Alan L. Schuler

Senior Staff Member .....34 years

### Troy D. Shook

Manager - Production .....11 years

### Kai J. Tong

Engineering Specialist - Sr. ....6 years

### Julieta E. Umland

Executive Secretary .....15 years

### John I. Washburn

Project Engineer - Sr. ....8 years

### William F. Wennhold

Engineering Manager .....33 years

### Frank L. West

Engineering Technician .....33 years

### Allan E. Wilmot

Engineering Staff Specialist .....32 years

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Mail Zone K4-5502

NEXT DEADLINE: COB WEDNESDAY,  
NOVEMBER 3

**FOR SALE**, unique boy's bedroom set, NFL football design, hardwood headboard, bookcase & clothes locker, \$150. Linda, 561-5161

**FOR SALE**, Heathkit 25" TV, model GR-2000, mounted in mediterranean-style wood cabinet, currently non-functional, manuals included, \$75. Jim, 481-6331

# Questions & Answers

The *Orbiteer* offers space for employees' questions concerning company and industry issues. Please forward your questions to the editor at **Mail Zone K4-5502**. We will try to get your question answered as soon as possible, and will print them as space allows. All questions must include the employee's name, work extension, and employee number. Confidentiality is guaranteed, but we need to verify that the questions and comments received are from employees.

## Q When will I know how I am affected by the reengineering?

**A** There are two aspects to reengineering: restructuring and reengineering. The first, restructuring, has involved all the sites (site manager concept), the program office (projectization), and the division staff and management (organizing around processes). This has been going on for the past year and should wind down by year end.

The second aspect, reengineering, has also been going on for the past two to three years, and involves analyzing the processes by which work is performed and doing it better. Some examples of this are MRP II, Just-In-Time, span time reductions, purchase order management and many other "Best in Space" examples. There remain many opportunities and this process will likely be picking up speed over the next year.

The point is you have probably already been affected by reengineering, and barring unforeseen circumstances, we should see some stability in 1994. (Mike Wynne)

## Q When are everyone's new positions effective?

**A** Each of the division staff organizations will be individually announced, but should be completed by the end of October. (Mike Wynne)

## Q How many total employees are expected to be at GDSS when the reengineering is completed?

**A** We intend to be the highest quality, lowest cost producer and hope to sell a steady volume of Atlas/Centaurs, Titan/Centaurs and magnets. Our total employee count will be cost-effective for the volume we sell, and not dependent on any organizational methodology such as reengineering. (Mike Wynne)

## Q If the reengineering is supposed to make it easier for the employees to communicate with their bosses, why is it more difficult now than it ever was before?

**A** By reducing the number of layers and increasing the supervisory span, as well as organizing around processes, we hope to encourage open communication channels. You should keep this question on hold until the new organization has time to settle in. (Mike Wynne)

**Q** If it's true we will no longer attempt to develop new products or services for the space launch industry, how long can we expect to remain competitive before our Atlas technology is overcome by time and new designs being fielded by foreign makers such as Arianespace's Ariane-5?

**A** We are leading the industry in the advancement for new products, and intend to stay that way. The company will no longer be the investor and will look to the customer community for support. The customer community has responded to this and should provide great opportunity for future products. We remain very concerned about our foreign competition, but see a long continuing product cycle for our Atlas and Centaur class vehicles. (Mike Wynne)



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## In The Next Issue...

- **Security Focus**
- **September Service Anniversaries**
- **Space Spinoffs**

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# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

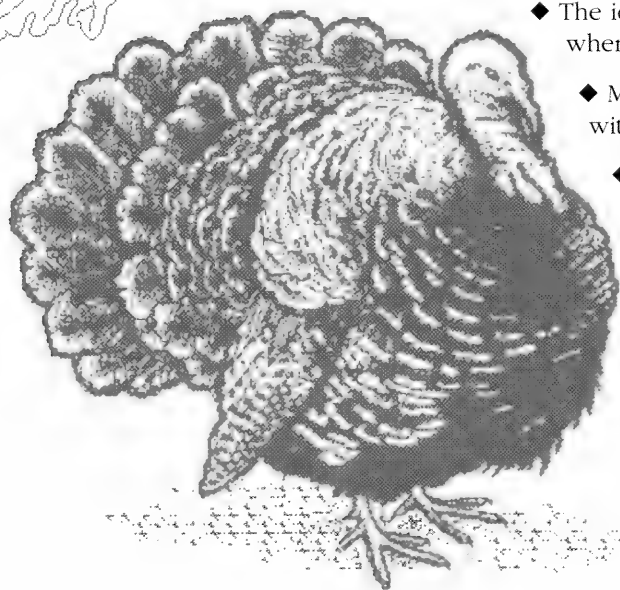
*A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division*

**November 24, 1993**

**The history of Thanksgiving in the United States is full of interesting facts. To help you and your family celebrate this special time, we've listed a few of these...**

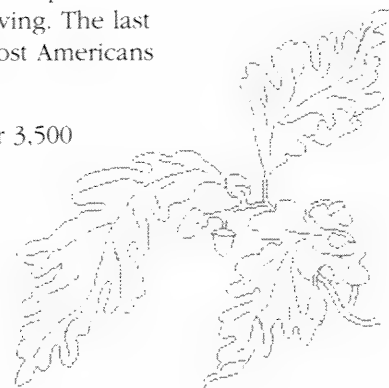


## Thanksgiving Tidbits



- ◆ The idea of a day for expressing gratitude originated in ancient Greece, when special festivals were held to give thanks for bountiful harvests.
- ◆ Many of America's first settlers brought the custom of a day of thanks with them from the Old World.
- ◆ The first formal Thanksgiving in America took place at Plymouth Colony (in what is now Massachusetts) in mid-October 1621, when Governor William Bradford announced a formal celebration of thanksgiving.
  - ◆ The pilgrims of Plymouth Colony invited Massasoit, the Wampanoag tribe chief, to join the Thanksgiving feast. Over 90 Native Americans came with the chief to the celebration, which lasted three days.
  - ◆ The first feast featured turkeys, venison, lobsters, clams, bass, corn, green vegetables and dried fruits.
  - ◆ Legend says that Native Americans first introduced popcorn to the colonists at this first Thanksgiving.
- ◆ Thanksgiving Day wasn't established as a permanent, annual holiday until October 3, 1863, during the Civil War, when U.S. President Abraham Lincoln issued a proclamation that set aside the last Thursday in November for the national holiday.
- ◆ This special holiday has been celebrated on the fourth Thursday in November ever since, except three times: in 1865, 1869 and 1939, when the respective U.S. Presidents declared other days of Thanksgiving. The last exception – 1939 – caused turmoil for President Franklin D. Roosevelt, especially when most Americans ignored his proclamation and celebrated the holiday on the fourth Thursday anyway.
- ◆ An American Thanksgiving Service was held in London's Westminster Abbey in 1942. Over 3,500 American troops stationed in England during World War II attended the ceremony, which represented the first service other than a Church of England ceremony held at the abbey's altar in nine centuries.
- ◆ We hope your day is full of blessings. Enjoy the holiday.

Facts compiled from *The American Book of Days*, by Jane M. Hatch, 3rd edition.



# Maternity Fraternity Group Celebrates Successful Two Years

October marked the second anniversary of a unique organization at Space Systems in San Diego – the Maternity Fraternity. This group, started in October 1991 in conjunction with the San Diego-Imperial Counties Chapter of the March of Dimes, offers pre-natal education to mothers- and fathers-to-be. The group has graduated 35 people since it began, and currently has eight members.

The organization strives for healthier babies by providing expectant parents with valuable pre-natal information from the March of Dimes. Brochures on more than 50 topics of interest and various videos on pregnancy and newborn baby care are made available to members.

Every other month, the March of Dimes provides a speaker who visits the division and conducts an on-site lunchtime seminar on various topics such as fitness and eating for two, the role of genetics, coping with stress and the danger of drugs, tobacco and alcohol during pregnancy.

Organizers of the group, Elaine Briggs of Safety and Health and Becky McDonald of Human Resources, work closely with the March of Dimes to provide topics that members would benefit from. For example, at the request of our Maternity Fraternity members, the March of Dimes created a seminar called "Bouncing Back," which is specifically designed for the first-time mom who has to return to work and face the stress of separation from her newborn.

The March of Dimes has called the Space Systems program the most successful one in the San Diego-Imperial counties and has featured our program in their newsletter, *March On*. Our program also received national recognition when one of the graduates, Kim McCall, was featured in the April 19, 1993 edition of *Fortune* magazine with her newborn Elizabeth.



*Members and graduates of the Maternity Fraternity gather for a group photo to celebrate the continuation of this wonderful division program. (photo by Dan Nash, Still Photography)*

## How You Can Participate

The rules of the Maternity Fraternity are simple. During the first trimester, a mother-to-be must:

- Visit Elaine Briggs
- Provide a doctor's note of early pre-natal care
- View a March of Dimes video entitled "Journey to Birth"
- Attend at least one of the lunchtime March of Dimes seminars during the remainder of the pregnancy

The rewards of the program include better knowledge of pregnancy and a gift such as a stroller, car seat, play yard or \$50 gift certificate.

Over the last two years, the program has accomplished its original goals:

- Reducing hospital stay times for both mom and newborn
- Decreasing complications diagnosed during pregnancy
- Increasing awareness of good behaviors during pregnancy, such as not smoking or drinking, and the need to gain more than 25 pounds

The Maternity Fraternity is introducing a new and exciting topic at the next meeting to be held December 9 – "The Expectant Father!" One of the current goals of the group is to bring the father-to-be into the pregnancy process and parenting so he gains a better understanding of the emotions and feelings of the mother-to-be. Watch for flyers on this special event.

For further information on the Maternity Fraternity's activities, please contact Elaine at 395-48 or Becky at 441-35. •





# Service Anniversaries

October 1993

## 40 Years

Ray Brown  
Walter Sauer

## 35 Years

Ernest Gravelle  
James Rager

## 20 Years

Frances James

## 15 Years

Edward Barnsley, Sr.  
Walter Boost  
Sumner Hushing, III  
John Karas  
Sharlene Mesick  
Michael Paris  
David Pearce  
David Walker  
Robert Williams

## 10 Years

Darrell Blalock  
Beverly Buba  
Patsy Burroughs  
Richard Clyne  
Erasmio Cortez  
Lawrence Doane  
Sandra Dominguez  
Kenneth Gowen  
Christopher Grainger  
Sharon Hughes

## 10 Years Continued

Ronald Kerzner  
Jimmy King  
Paul Kopcha  
Victoria Kuick  
Bruce MacDonald  
Rita Messer  
David Michalsky  
James Ortiz  
Rekha Patel  
Judi Picard  
Frank Piszkin  
Rick Reder  
Barbara Rex  
Ken Robinson  
Nancy Rose  
Cezanne Ryerson  
Philip Smith  
Robert Stoebel  
Laura Szalwinski

## 5 Years

Norbert Acuesa  
Sylvia Cantu  
Luis Cardenas  
Jamie Chaffee  
Diane Daniels  
Tuoc Dao  
Lisa Degelsmith  
Jeffery Devereux  
Rene Escobedo

## 5 Years Continued

John Esposito  
Robert Hartman  
Donald Hibbard  
Thomas Holcomb  
Roger Lamberson, Jr.  
Robert Leftwich  
Alexander Loya  
Joel Luth  
Robert McDonald  
Thomas McLaughlin  
Stacy Murphy  
Alisa Nathan  
Lon Nestrud  
Tuan Nguyen  
Mary Noriega  
Patricia Oliva  
Arturo Prado  
Nathern Priddy  
Lorenzo Quiroz  
James Roberts  
Harvey Rudisaile  
Alberto Sanchez  
Anthony Sardina  
Samuel Scheerens  
Richard Shertzer  
James Torpey  
Jason-Valavanis  
Mark Valente  
Joe Ybarra

## Community Relations Activities

**Computer Donations...** GDSS and Computer Sciences Corporation have developed a process for donating obsolete computers. Any employee who would like to be a sponsor of a computer donation should contact Liz Bodily at 573-3007. She will send you a small information packet detailing each step in the donation process.

Approximately 100 computers available will be processed on a first-come, first-served basis. If you know of a school or community organization in need, this may be your chance to help. •

**Corporate Matching Gifts...** Employees who use the corporate matching gift program are reminded that the program comes to a close on December 31, 1993. Please advise the recipient of your gift about the deadline. Matching gift request forms received after the deadline will not qualify for matching funds. •

**Share Bear...** The division's Share Bear activities have begun. Department coordinators distributed gift tags on November 22. All toys need to be brought in, unwrapped, by December 13. •



## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad.

**Send ads to: Orbiteer Editor,  
Mail Zone K4-5502**

Classified ad information appearing in the *Orbiteer* comes from many sources. The *Orbiteer* and the General Dynamics Corporation do not assume responsibility for or warrant the accuracy or completeness of statements appearing in these advertisements.

**NEXT DEADLINE: COB  
WEDNESDAY, DECEMBER 1**

**FOR RENT** 3 BDRM, 2 1-2 BA duplex in Spring Valley w. fenced yard, garage, and laundry hookups, \$785 mo. Kathy, 698-5356

# Launches Keep GDSS Busy during Holiday Season

What a way to celebrate Thanksgiving! Some dedicated GDSS employees will be working this weekend to get our next "bird" – AC-106 – off the ground. All pre-launch events, including the Wet Dress Rehearsal and vehicle stacking, have gone as planned. The anticipated launch date is November 28, with the launch window extending from 6:09 to

7:25 p.m. EST. AC-106, an Altas II, will lift the DSCS 4 satellite into space as part of the Medium Launch Vehicle II program for the U.S. Air Force.

And keeping with the holiday spirit, AC-108, our first Atlas IIAS, is scheduled to launch AT&T's Telstar 4 satellite into orbit December 13, less than two weeks before Christmas. The Wet Dress Rehearsal for this vehicle

went splendidly according to Rich Gibb, Cape Canaveral Air Force Station site director, and further events are proceeding as planned. The launch window on December 13 extends from 7:19 to 8:19 p.m. EST. •



## New Services Group Provides Expanded Support

With the division's reengineering, Copier Services, the FAX Center and Mail Services employees now make up a new organization. Facilities Management Administrative Services, for improved processes and cost savings. With this reorganization, several new services are being offered to the division.

A new, staffed satellite copy center, located on the second floor of the low bay area, near column 226L in Kearny Mesa Building 5, will open before the Thanksgiving holiday. In the meantime, a twice-a-day pickup and delivery service for this building has begun for high-volume copying needs as well as engineering drawing reproduction. Facsimile messages to be sent from the FAX Center in Building 24 can also be dropped off at two designated locations in Building 5. These locations and times of service are:

### Reprographic/Engineering Drawings

Building 5-1, hallway at column G5 G6  
Building 5-2, outside copy center at column 226L  
7:30 a.m. & 2 p.m.

### Facsimile Messages

Building 5-1, hallway at column G5 G6  
Building 5-2, outside copy center at column 226L  
9 a.m. & 2:30 p.m.

Another recent change consolidated the total number of copy machines and placed newer equipment in several office areas. The Administrative Services organization continually tries to provide its customers – you – with the most efficient, cost-effective service for your reprographic, facsimile and mail delivery needs. You can help ensure this service continues efficiently by providing former and current mail zone information, department number and telephone extension updates every time you change departments, locations. Give these changes to the Mail Room in Kearny Mesa Building 26, 1st floor (Mail Zone 21-165). •

## Employment Figures

(Week Ending November 12, 1993)

Cape Canaveral AFS .....	526
Commercial Launch Services .....	35
Financial Service Center .....	79
GD Space Services .....	42
Hammond .....	181
Harlingen .....	231
Huntsville .....	25
Property Management .....	8
San Diego .....	2,453
Vandenberg AFB .....	198
<b>TOTAL .....</b>	<b>3,798</b>



The *Orbiteer* is printed on recyclable paper. After reading, please discard in the colored paper recycle bins.

**ORBITER**  
GENERAL MANAGER'S SPECIAL DELIVERY MAILING

The *Orbiteer*, Space Systems Division's employee newsletter, is published biweekly. Submitted articles will be printed as space permits, at the discretion of the editor. All submittals may be edited per space requirements. Send items of interest to:

### Orbiteer

**P.O. Box 85990, Mail Zone K4-5502  
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(504) 543-3227

Harlingen Reporter: Noelia Gutierrez  
(210) 430-7835

Huntsville Reporter: Don Deming  
(205) 922-3323

Space Services Reporter: Dave Bennett  
(407) 783-1236

VAFB Reporter: Barbara Klinedinst  
(805) 734-8232 Ext. 67547

# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

December 10, 1993

## AC-106 Carries Air Force's DSCS Satellite into Space

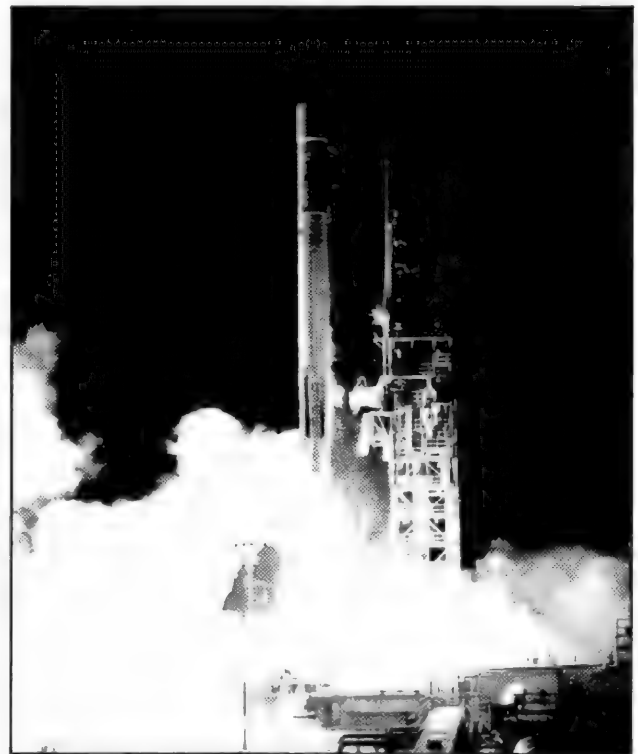
**I**n the darkness of the night of November 28, Atlas/Centaur 106 roared into orbit, carrying the fourth DSCS III satellite.

This vehicle, launched at 6:40 p.m. EST into geosynchronous transfer orbit, represents a new record for Space Systems – the shortest span at Cape Canaveral Air Force Station between delivery and launch. It also was the 511th launch overall of an Atlas vehicle and the 87th Centaur flight.

Atlas has carried all four of the U.S. Air Force Defense Satellite Communication System III payloads successfully into orbit.

"The Atlas II has performed flawlessly for the Air Force's DSCS program," Division President Mike Wynne said following the launch. "The General Dynamics and Air Force partnership continues to achieve important milestones for the military space program."

DSCS III provides secure voice, high-data rate, and super high-frequency communications for the Department of Defense, State Department and other U.S. government agencies. GDSS is under contract to the Air Force for nine launches plus two options in the Medium Launch Vehicle II program. •



### In This Issue

- *MRP II at Plant 19*
- *Food Harvest Drive Results*
- *Plant 19 Archives Distribution Begins*
- *Questions & Answers*

### GDSS Receives Second Superior DIS Rating

**O**ur division impressed the Defense Investigative Service (DIS) during its recent inspection of our facility, enough for them to give us our second consecutive superior rating.

The Industrial Security Inspection held November 16 – 18 at Space Systems focused on our management of classified contracts, master document control, automated information systems, visitor control, communications security, personnel security, security education, and other Industrial Security manual requirements. The DIS team spent almost 90 hours reviewing our facility. No serious deficiencies were found during the review, but some administrative items will

*Continued on page 5*

# Plant 19's MRP II Implementation Reaches Next Milestone

Manufacturing Resource Planning II (MRP II) took a giant step forward on October 25 when all Plant 19 production systems went on-line with MAC/PAC-D, the software package that is integrating all division systems.

"We now have one production schedule, based on bill-of-material logic, for the entire build process that will be used to deliver quality products to our customers," Plant 19 Site Director Mike Gass said recently.

Before MAC/PAC-D, the "legacy" systems were used, explained Pete Morris, MRP II manager. "The master production schedule wasn't necessarily linked with everyone else's schedule within these former systems," he said. Now there is one schedule into which everyone's work is integrated.

With MRP II, a manufacturing order isn't released to the production personnel unless it is an accurate and complete work package, making the work much more efficient. Material Planners at Plant 19 are already seeing the benefits of the new system.

"The new software (MAC/PAC-D) is more efficient, and more

flexible than the old system," Senior Material Planning Specialist Tom DeShon said. "This system provides a view further into our production future, making the work we do now more accurate."

Another senior specialist, William Joseph, agrees. "This system is a tremendous asset. It provides us with visibility and the ability to control what happens next in the process."

One of the most recognizable benefits is the reduction in the number of different systems used throughout the division by groups involved in the production process.

"We used to have several different systems," Senior Specialist Van May said. "Production, Purchasing, Material, Quality, Engineering, and Finance are now all on the same system, speaking the same language. This helps us keep the production schedule current and accurate."

And Senior Specialist Chris Oswald mentioned that the system is easier for the user and provides continuity for all involved in the process. "The system provides increased visibility on the potential problems that could arise in the production process, so we can deal with these problems in a more logical fashion," she said.

Michael Gass added, "Our challenge is to utilize the MRP II system to its full capability in maintaining a stable work flow through each work center in the build process. The new system increases our visibility in uncovering problems

earlier in the build process, thus giving us the opportunity to correct the problem, and provides increased flexibility to reschedule other tasks into the work center, which maximizes our efficiency."

All of this is based on information technology with the new, integrated network process.

"What used to take us days to figure out and process in the old system now can be done overnight," he said. "But we need to be ready to accept this new technology. As we use it regularly, the benefits will become more evident. We need to be disciplined in keeping our data accurate and up-to-date and stay focused in managing to the daily work plans that the integrated computer system logic output provides."

This focus will be used to achieve the next MRP II milestone at Plant 19 — Class A MRP II status, based on the evaluation of other business practices including planning and control, data management, performance management, and continuous improvement. Plant 19 personnel plan to achieve Class A MRP II certification by April 1994. •



Plant 19 Tank Fabricator Troy Kuentz (left) reviews a manufacturing order released through the MRP II system with Pete Morris, MRP II manager. (photo by Dan Nash, Still Photography)



Four Plant 19 Material Planners really like the new MRP II system. Pictured from left to right: Tom DeShon, William Joseph, Van May, and Mike Paris. Not Fickens: Chris Oswald. (photo by Dan Nash, Still Photography)



# GDSS Works to Support Small Business

Space Systems has its own Small Business Office, which works to provide opportunity for small and small disadvantaged businesses to participate in our subcontract activities. Patty Pierson, our Small Business administrator, has been working very hard this fall to support these small businesses and the non-profit community.

On September 15, our Small Business Office hosted the Southern California Small Business Utilization

Council's quarterly membership meeting. This council includes small business representatives from the aerospace industry and governmental agencies. The group received an update on Department of Defense procurement information and current legislative issues, an overview of Space Systems' product line, as well as a tour of our production facilities.

In October, the Charles R. Drew University of Medicine and Science received over \$70,000 worth of

computer software, donated through our Small Business Office. This minority institution, located in Los Angeles, will use the software in its computer labs, and educational and patient care facilities.

Recently, members of the Business Communications organization – John Clinger, Mario Cabading and Doug Powell – visited the local center of the Association for Retarded Citizens (ARC) for a tour of the facilities. Business Communications is evaluating ARC's printing capabilities and may use this non-profit organization for printing our business cards and notepads. •



*Members of the Charles R. Drew University staff fill their van with GDSS software. Pictured from left to right are Tom Georgi of Computer Sciences Corporation, who assisted with the donation; an unidentified faculty member from the university; Patty Pierson of GDSS's Small Business Office; and Richard M. Baker, M.D., the university's assistant dean, Office of Research. (photo by Dan Nash, Still Photography)*

## Plant 19 Archives Distribution Begins

It's housekeeping at its finest! Did you know that there has been a whole building at Plant 19 in San Diego solely dedicated to archives? John Wayman has been controlling these archives in Building 8 since 1975, and says that over 44,500 boxes of files are located in this building – but not for very much longer.

Hughes, CSC and GD are currently sorting through the boxes and moving them out of this building to other facilities. Hughes has already started its move of archive boxes.

An agreement among the companies allows all three to have access to the files at the different locations for the next few years. The Convair Alumni Association will also be going through the boxes, some of which contain materials that date back to the 1930s, looking for items of historical interest to donate to the San Diego Aerospace Museum in Balboa Park.

Upon completion of this relocation process, John Wayman will be in charge of the Space Systems archives in their new location at the Kearny Mesa facility.

Carol Aguilar of Facilities predicts that all records will be out of the building by January 1994. Once the building is vacated, it will be returned to the U.S. Navy, along with Plant 19 Buildings 1 and 2. •



*John Wayman (left), coordinator of archives at Plant 19 for almost 20 years, has been working with Jim Orluck of Hughes to coordinate that company's move of their archives. (photo by Dan Nash, Still Photography)*

# Craftsmen Manufacture Alarm Panels

Once again, our in-house Maintenance and Construction team has come through to support our division's operations. Using a design produced by Senior Facility Engineer Terry Spain, this group constructed four portable tank pressurization alarm panels for use in the Atlas Final Assembly facility, located in Kearny Mesa Building 5. These systems, which are a requirement on production specifications, will monitor and chart the forward and aft tanks. This project definitely represents a job well done. •



*GDSS employees manufactured these alarm panels, now in use in Kearny Mesa Building 5. Shown from left to right are Electrician Joe Brunetto, Welder Gerry Scott, Electrician Ed Tabbert, and Plumber Allen Berry. (photo by Dan Nash, Still Photography)*

## Industry Information

**Pratt & Whitney's RL10 engine reached its 30th anniversary of service on November 27.**

These engines were first used in flight when they powered the Centaur upper stage of an Atlas/Centaur in 1963.

"As the world's first flight-certified liquid hydrogen rocket engine, the RL10 demonstrated the feasibility of liquid hydrogen as a rocket fuel and by doing so, served as an important stepping stone to the Apollo lunar landing. All subsequent space propulsion systems benefited from the trail blazing accomplishments of the RL10," said Joseph P. Zimonis, executive vice president and general manager, USBI Co., a unit of Pratt & Whitney's Government Engines & Propulsion unit.

RL10 engines also were used on the Centaur of AC-106 launched November 28. •

# Food Harvest Drive Feeds 39 Families

The first annual Food Harvest Drive was a complete success, with division employees donating enough food, money and gift certificates to feed 39 families of displaced employees. These families were nominated by GD employees for needing assistance during the holiday season.

The United Way, through the employee Con-Trib Club, donated 25 gift certificates, which were given to the families for the purchase of turkeys.

Additionally, over \$250 in money and gift certificates was given by Space Systems employees. Thanks go to all who helped in this worthwhile endeavor. •



*Photo above: Richard Zenger, Jr. and Eulah Marshall of Copier Services empty the food drive donation bins in Kearny Mesa Building 24 as Plant Protection Officer Bob Hernandez looks on.*

*Photo at left: Division volunteers sort the food brought in by GDSS employees for the Food Harvest Drive families.*

*(photos by Mike Munson, Still Photography)*

# DIS

Continued from page 1

need to be corrected.

Following our inspection, Senior DIS Representative Craig Packard told Division President Mike Wynne that the division's security posture remains strong. Out of the almost 50 positive interviews, DIS representatives recognized GDSS Senior Engineer Jeff Venegas, who displayed excellent security knowledge and a courteous, cooperative attitude during the inspection process.

This second superior rating hopefully will allow us to compete for the James S. Cogswell Award for sustained excellence in Industrial Security. Less than one-half of one percent of eligible facilities are recognized annually for the security excellence needed to receive this prestigious award. *(editor's note: see November 12 issue of the Orbiteer for more information on this award.)*

Our division has worked toward winning this award for several years. With your continued support, such as that given during the recent DIS inspection, we can achieve this goal. Congratulations! •

## Retirees

### Janet E. Browne

Material Analyst ..... 6 years

### Ramon A. Ceccotti

Plant Protection Officer ..... 6 years

### Marlene H. Colvin

Staff Secretary ..... 26 years

### Harold F. Davis

Group Leader ..... 6 years

### Charles E. Day

Ground Equipment Mechanic ..... 41 years

### John DeBlanc

Division Vice President - Public Affairs & Community Relations ..... 38 years

### William S. Isaacs

Project Engineer, Sr. .... 15 years

### Che-Shing Kang

Engineering Specialist ..... 10 years

### Carol J. Palmer

Executive Secretary ..... 32 years

## Holiday Gift Exchange Shouldn't Include Suppliers

As the holiday season approaches, please be reminded of GDSS's policy relating to gifts and gratuities, which states that acceptance or solicitation of any gifts or gratuities from suppliers or prospective suppliers is prohibited. Business must be conducted in such a manner that no appearance of improper influence can be concluded in the performance of employee's duties.

If you receive any gifts or gratuities, you are responsible for returning them to the supplier or forwarding them to Marcia Weitala for return. If you return them directly, please forward a copy of the return transmittal letter to Marcia at K2-7841.

If you have any questions regarding this policy or any specific situation you encounter, please consult your supervisor or Dan Little, Business Ethics manager, at 43223 for guidance. •

## Classifieds

Classified Ads are free to GDSS employees and retirees. All ads should be typed or written legibly, be kept brief, and will be printed as space permits. Items for sale or rent cannot be listed in more than two consecutive issues, and only one ad per person per issue. A new ad must be submitted for each issue as we cannot hold ads for future publication.

All ads must include your name, mail zone, work extension, and home phone number. Only home phone numbers will be printed in the ad.

**Send ads to: Orbiteer Editor,**

**Mail Zone K4-5502**

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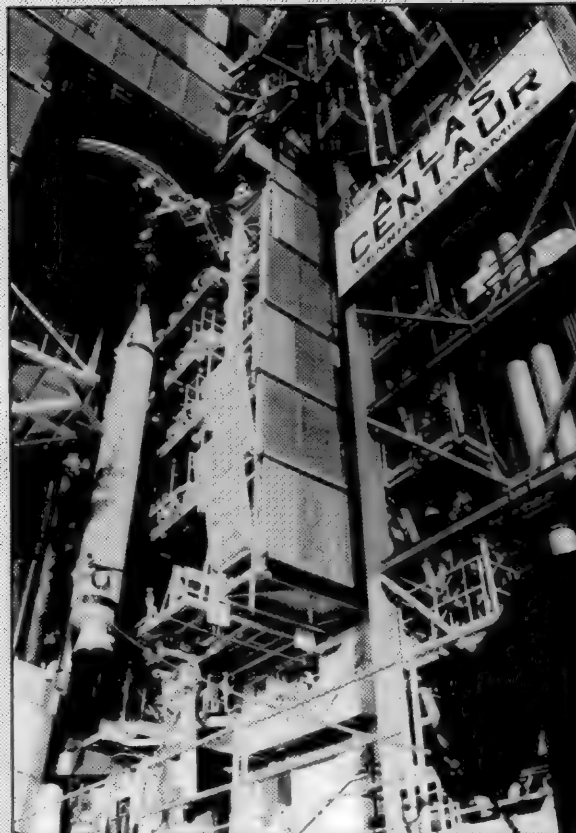
**NEXT DEADLINE:**

**COB FRIDAY, JANUARY 7**

**FOR SALE,** Pine bunk bed w mattresses, \$100. Kelly 224-5446

**FOR SALE,** Older Frigidare washing machine, needs work, make offer. Kelly, 224-5446

**FOR SALE,** Round top, Crosley Shelvador refrigerator, glass shelves, works well, make offer. Kelly, 224-5446

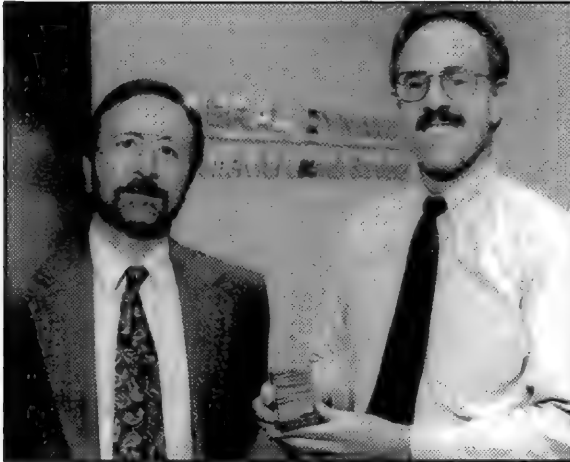


## Boosters on and Ready to Go!

*Installation of Atlas/Centaur 108's solid rocket boosters was completed on November 22. This vehicle, our first Atlas IIAS, is well on its way toward launching next week.*



## Employee Profile – Tom Edwards, Baseball Memorabilia Collector



Collector Tom Edwards (left) and Andy Strasberg of the San Diego Padres organization show the Yankee Stadium bleacher piece recently sold in an auction benefiting ARC. (photo by Dan Nash, Still Photography)

Many people know Tom Edwards, a senior Facilities engineer in San Diego, for his outstanding contributions to the division's recycling program. But Tom recently made another significant contribution – this one to a fundraiser for the Association for Retarded Citizens (ARC).

Back in October, the San Diego Padres baseball team joined with The Old Globe Theater in Balboa Park to hold an auction benefiting ARC. The main focus of this auction was New York Yankee memorabilia, linking the auction with the Old Globe's then current production of the hit musical "Damn Yankees."

Andy Strasberg, director of Public Relations for the Padres, contacted Tom, who is well known for his baseball memorabilia collection. Tom was asked to donate something from his collection, and he did so – a piece of the original section of the bleachers from Yankee Stadium.

Tom started collecting baseball cards in 1958, when he and some friends went to a candy store to buy some cards after a game. This started his hobby of the last 35 years. The irony in this latest "trade" of the bleacher section is that Tom originally received this piece of history a few years ago from Andy Strasberg, the man who asked him to donate part of it to the ARC auction. We think this shows that Tom really is a good sport! •

## Questions & Answers

The *Orbiteer* offers space for employees' questions concerning company and industry issues. Please forward your questions to the editor at Mail Zone K4-5502. We will try to get your questions answered as soon as possible, and will print them as space allows. All questions must include the employee's name and work extension.

**Q** Concerning our Dynaflex benefits, why are we required by the company to use a portion of our benefit dollars to cover life insurance coverage? I have my own policy outside of the company that I feel provides me enough coverage and would rather use my GD benefit dollars to cover the increase in medical coverage. Why isn't there an option for zero insurance coverage in the Dynaflex packages offered to employees?

**A** The company provides enough Dynaflex benefit dollars to purchase 1 2 times pay life insurance. Salaried employees have the option to select a flat amount of \$10,000 life insurance and use any additional benefit dollars toward the purchase of other benefits. The corporation has long maintained a philosophy of providing all employees with a company-paid basic amount of life insurance. (Human Resources)

## AC-108 Launch Update

As we went to print, AC-108's launch date depended on the Space Shuttle's landing date. If the Shuttle lands on its planned date, December 13, we are scheduled to launch December 14. If the Shuttle is delayed, we are processing the vehicle to be ready to launch December 13. Call the launch hotline, 573-8769, for up-to-date information on this launch. •



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VAFB Reporter: Barbara Klinedinst  
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## In The Next Issue...

• **Mike Wynne's Holiday Message**

• **1993: A Year in Review**

## Employment Figures

(Week Ending November 26, 1993)

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Vandenberg AFB .....	198

**TOTAL .....** 3,787



# ORBITER

GENERAL DYNAMICS SPACE SYSTEMS DIVISION

A Biweekly Newsletter for the Employees of General Dynamics Space Systems Division

December 22, 1993

## A Holiday Message to Employees

*My Fellow Employees:*

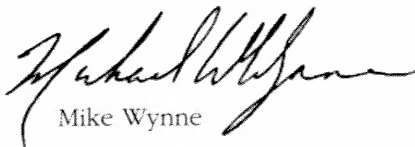
Our Space team should be proud of its 1993 accomplishments. Working together, we successfully returned to flight, restarted our Atlas sales campaign with a string of successes and orders, postured the Titan/Centaur for a successful launch in 1994, overcame the SSC defeat with an aggressive plan to maintain that business area, dealt effectively and realistically with reengineering and healthcare, and successfully launched our first Atlas IIAS.

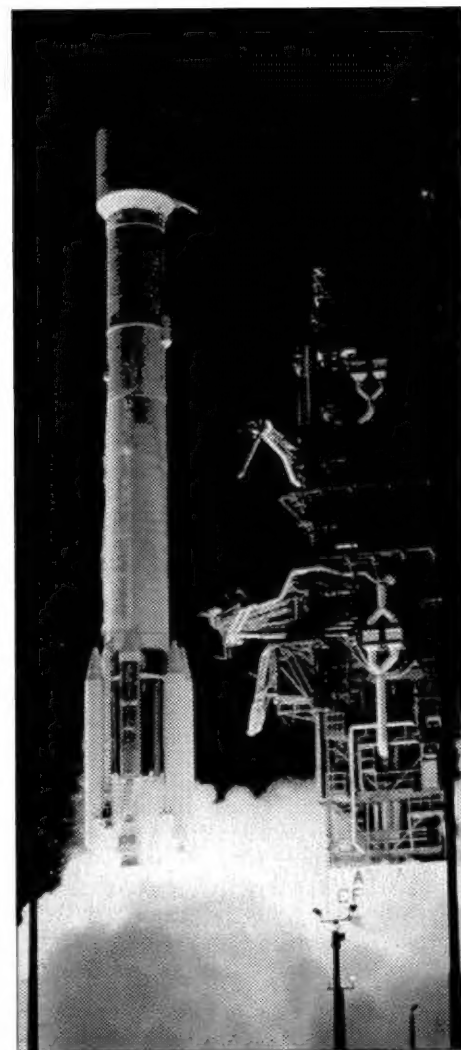
The successful Atlas IIAS launch was a fitting capstone for 1993. It was truly historic – the first application of solid rocket motors to the Atlas configuration, and our Space team deserves a very special congratulations for this notable first.

The year was filled with trial, turbulence and triumph, but the painful actions we took were necessary to position us for success. Those reengineering and restructuring actions will help us increase our efficiency, drive out costs and establish our division as the lowest cost, highest quality producer. Now, with a string of successes, we can have an enduring business with a broader and more exciting product line.

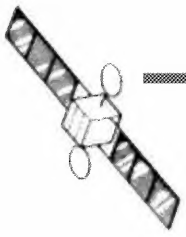
Next year should be a year with focus on fewer areas. Because of the steps we've already taken, 1994 is set to be our biggest sales, launch and build year in more than 20 years. Of course, the Super Collider will be hard to replace, but we are pursuing every avenue to extend our Magnetics business area too. I predict that hard work, quality production and successful launches in 1994 will expand our reputation as a market leader.

I'm absolutely confident the Space team we've put together will be more than a match for any new challenges we might face next year. For now, concentrate on enjoying your family and friends over the holidays, and accept my very best wishes for a Happy New Year!

  
Mike Wynne



**See page 4 for  
article about  
the launch  
of AC-108, our  
first Atlas IIAS.**



# 1993: A Year in

## JANUARY

Hammond Facility donates roofing materials to local youth shelter

LSSRC (Large Subscale Solid Rocket Combustion Simulator) contract awarded to Huntsville Facility

San Diego sites support Tijuana flood relief effort

Centaur Processing Facility ground breaking ceremony held January 12 at Cape Canaveral AFS

Division President Mike Wynne presents his State of Division address on January 18

GD's Lunar Access program featured on January 19 *Aviation Week* magazine cover



Maternity Fraternity featured in *Fortune* magazine

Bill Anders retires, Jim Mellor named Chief Executive Officer



## MAY

GDSS gets Recycling Achievement Award from San Diego Waste Management Department for second consecutive year

T. K. Mattingly named new Atlas deputy vice president and Michael Wash appointed CLS president

Harlingen Facility completes first collider dipole magnet vacuum vessel

San Diego Mayor Susan Golding declares May 26 GD Day



## FEBRUARY

Board concludes AC-71 failure review on February 3

## MARCH

First annual Cultural Awareness Month

CRA announces membership open to general public

GDSS passes surprise DIS inspection

The first booster built at Plant 19 during Manufacturing Resource Planning II (MRP II) program delivered to Kearny Mesa on March 1

AC-74 launches on March 25, experiences anomaly

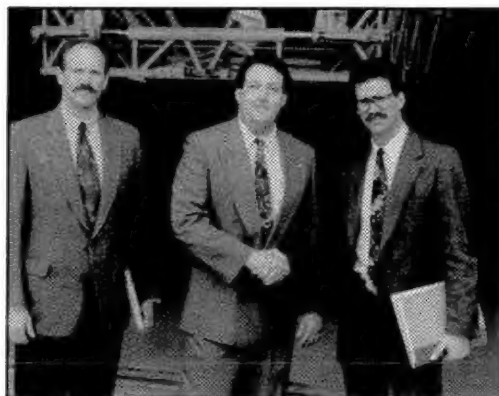
## APRIL

CRA holds annual Easter Egg Hunt on April 10

Harlingen Facility reaches Class A MRP II status

Division supports nationwide WalkAmerica activities

Former GDSS general manager, Dr. Al Lovelace, retires April 30



## JUNE

AC-74 Anomaly Review Board concludes investigation

New CLS office opens in Kearny Mesa Building 24

Division restructuring announced

Congressman Bob Livingston visits Hammond Facility

## JULY

GD, Boeing, Martin Marietta, and Rockwell International form team with NASA to evaluate potential commercial space market

Larry Foss chosen "Voice of Atlas" – announcer for future Atlas launches

Kearny Mesa Plant reaches 35-year anniversary

Ben Wier, division vice president – Atlas programs, retires

We successfully launch AC-104 on July 19

# Review

## AUGUST

Atlas 34E successfully launches at Vandenberg AFB on August 9

Huntsville Facility runners place 11th in Huntsville Runway Run

SLC-3E activation ceremony held at Vandenberg AFB on August 18



## SEPTEMBER

Ed Squires, division vice president – Operations, hosts division picnic thanking employees for AC-108 support

Titan/Centaur team recognized by Air Force

Current Limiter Contract awarded to Space Magnetics

LC-40 TCD successful

EM/OS cancelled and replaced with Quickmail

Hammond Facility holds Open House with Sen. Bennett Johnson in attendance

AC-75 launches successfully on September 3

AC-108 production team wins AT&T award

A-108 & C-108 are loaded on C-5 and head to Cape Canaveral AFS

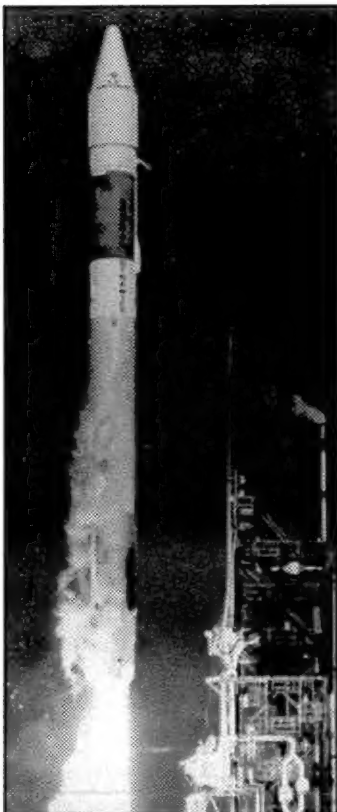
## OCTOBER

National Quality Month

San Diego Industrial Environmental

Association presents GDSS with 1993

Environmental Responsibility Award



House votes to cancel Superconducting Super Collider; Senate approves funding; but ultimately SSC funding was lined out of the FY '94 budget during closed-door negotiations between the House & Senate

Two year anniversary of Maternity Fraternity celebrated

MRP II MAC/PAC-D software officially on-line at Plant 19

Hughes awards division JCSAT launch contract

## NOVEMBER

Food Harvest '93 program initiated in San Diego, feeding 39 families of displaced employees

AC-106 and AC-108 Wet Dress Rehearsals successfully held at Cape Canaveral AFS

AC-106 launches without a hitch on November 28



Division receives Superior rating during DIS inspection  
Plant 19 archives distribution begins

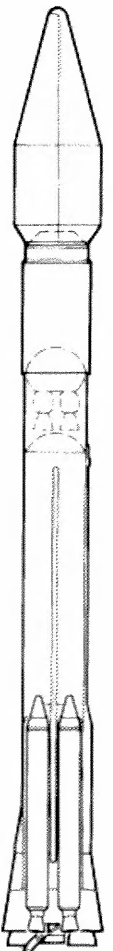
## DECEMBER

San Diego sites support Share Bear toy drive

Division submits Intermediate Expendable Launch Vehicle (IELV) proposal to NASA

Atlas/Centaur 108, our first Atlas IIAS, carries AT&T's Telestar 401 satellite into orbit on December 15

Photo credits provided on page 4





# AC-108 Boosts Space Systems Into New Era

As thousands of people watched, Atlas/Centaur 108, the first Atlas IIAS, rose majestically from its pad at Cape Canaveral Air Force Station at 7:40 p.m. EST on December 15, lifting AT&T's Telstar 401 spacecraft into space.

Events were marked minute by minute, as everyone remarked that this was one of the most spectacular sights ever seen. With this launch, Space Systems has proven to the competition that we are ready to fight for business carrying heavier spacecraft into orbit.

Probably the most remarkable aspect of this event was the hard work and dedication of Space Systems employees, who processed two launch vehicles simultaneously and in record time (AC-106, launched November 28, and AC-108).

"This whole event is a most exemplary show of teamwork," T.K.

Mattingly, Atlas program director, said at an employee appreciation party in Cocoa Beach, FL, following the launch. "You have made the dream of commercial space a reality and nothing stands between you and success."

Sy Baker, launch conductor, also mentioned the challenges faced by the launch team, who processed the vehicle in less time than any other Atlas/Centaur.

"You will never do a better job than you've done in the last four months," he remarked.

But, Hugh Coleman, Launch Service technician, perhaps best reflected the feelings of all Space Systems employees. "What a relief! We proved what we can do for the future of the American space program. We showed America and the world that we can place satellites dead on!" •

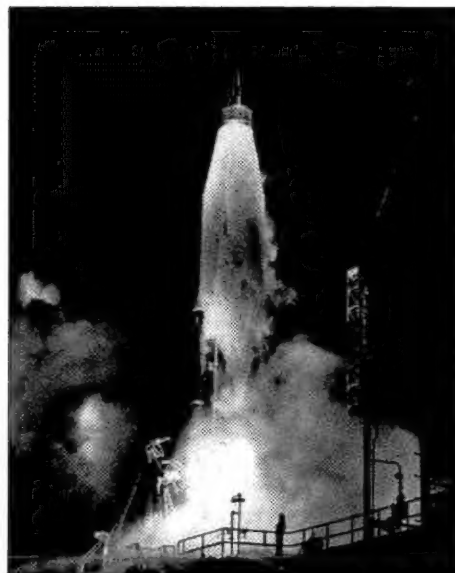
## It's the 35th Anniversary of Project Score

A moment of history was celebrated last week, when the Project Score mission reached its 35th anniversary.

Atlas 10B launched December 18, 1958, carrying a tape recorder and transmitter that broadcast President Dwight D. Eisenhower's message of peace from earth orbit. This marked the first communications to earth from space. •

*"This is the president of the United States speaking. Through the marvels of scientific advance, my voice is coming to you from a satellite circling in outer space. Through this unique means, I convey to you and to all mankind America's wish for peace on earth and good will toward men everywhere."*

— President Dwight D. Eisenhower  
December 18, 1958



### Photo Credits, pages 2 & 3:

Clockwise from top left: Centaur Processing Facility ground breaking photo by Michelle McIntire; Maternity Fraternity photo by Elaine Briggs; SLC-3E activation ceremony photo by Susan Goldman, Santa Maria Times; C-108 rollout photo by Mike Munson; Hammond Open House photo by Mike Munson; AC-104 launch photo provided by USAF 45th Space Wing; Harlingen Facility's first collider dipole magnet vacuum vessel photo by Lloyd Nye; First Plant 19 booster built under Manufacturing Resource Planning II photo by Ken Blum •

*The next issue of the  
Orbiteer will be distributed  
January 21, 1994.*

### Employment Figures

#### (Week Ending December 10, 1993)

Cape Canaveral AFS .....	530
Commercial Launch Services ...	37
Financial Service Center .....	79
GD Space Services .....	43
Hammond .....	172
Harlingen .....	231
Huntsville .....	25
Property Management .....	8
San Diego .....	2,431
Vandenberg AFB .....	197
<b>TOTAL .....</b>	<b>3,753</b>

## ORBITER

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